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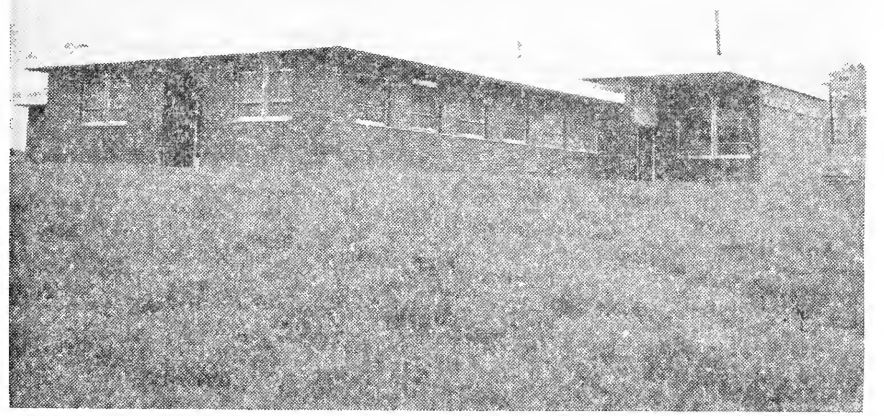

Iredell County Health Center
Statesville, N. C.

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Progress In The Control Of Some Diseases Of Animals Affecting The Rural Health

By Martin P. Hines, D.V.M.
N. C. State Board of Health, Raleigh, North Carolina

Since civilization began, man has depended upon animals for survival. First, he trapped and hunted for food and clothing; later he domesticated animals for food, transportation, power, companionship and pleasure. As human and veterinary medicine advanced, man found even greater uses for animals. Through drug potency and toxicity trials and the development of surgical procedures, effective vaccines and many other phases of medical research, animals have contributed a great deal to the health of our people, livestock and pets. However, in time and through medical progress man realized that as well as being beneficial, animals often endangered men's lives because some animal diseases are transmissible to man. For centuries epizootics, animal epidemics, threatened extermination of animals man depended upon, but not until the Pasteur era did man realize that these diseases posed a threat to his own health.

In America livestock production is

Abstract of paper presented at the 14th National Conference on Rural Health, Wichita, Kansas, March 5-7, 1959, under the sponsorship of the American Medical Association Conference on Rural Health.

a vital agricultural function indispensable to the farm and total economy alike. Americans have the best diet in the world for a smaller percentage of their income than most other countries. Last year twenty million farmers, less than one percent of the world's population, produced nearly one-half of the world's red meat, milk and eggs. But losses from livestock diseases last year amounted to nearly three billion dollars; ten percent of all farm animals in the United States died from diseases or parasites. Mastitis, a chronic non-fatal disease of dairy cows, causes a five percent loss in total milk production each year.

Somehow we must continue to increase our production efficiency and also produce a wholesome disease-free food supply to keep pace with population growth. Yet, when animals double in number, disease problems increase by four times in a geometric progression that piles up problems faster than they can be solved.

Modern systems of livestock transportation and marketing have caused animal diseases to spread faster and further. Not only must we be concerned with the prevention and control of diseases native to our livestock, but we must be constantly on the alert for the introduction, accidentally or intentionally, of dangerous foreign exotic diseases such as foot and mouth disease, rinderpest and fowl plague.

Since antiquity man has realized that he can acquire certain infections through animals, and rural people are most frequently exposed to these diseases. The word "Zoonoses" is applied to infections of animals that are seccondarily transmissible to man. Rural people generally contract these infections through the handling and slaughter of livestock or through the consumption of diseased milk or meats. Routes of infection—skin, mouth, respiratory tract—offer unlimited opportunities for the exchange of the infectious bacillary, viral, mycotic and parasitic agents. Each year "new" or variant disease strains found in animals are added to the growing list of zoonoses now numbering over one hundred.

Although the common means of infection is direct contact with infected animals or consumption of their products, farmers sometimes acquire infection through infected vectors as plague-infected fleas, encephalitis-infected mosquitoes or Rocky Mountain spotted fever and tularemia-infected ticks. Many infections are harmless or cause only subclinical disease in animals, but if transmitted to humans cause serious infection. A recent bacteriological survey in a North Carolina poultry processing plant showed that over 30% of the cultures taken from dressed chickens and the processing environment yielded various species of Salmonella frequently found in chickens, some of which are not particularly harmful to them. However, if these same organisms find their way to our kitchens, serious outbreaks of human food infection may result.

In dealing with the zoonoses we need to know more about ecology, or mutual relationships between various living organisms in the environment.

Unfortunately, some people believe they must live with these diseases which cause loss of life, physical suffering and chronic illness. They don't realize the tremendous losses to the livestock economy the diseases cause or the weakening effect they have on the urban population.

Another problem in the control of the zoonoses is lack of statistics—data are not adequate to impress public health workers with the threat these diseases present to rural people. Poor reporting of animal diseases, inadequate diagnostic facilities, and in some areas inadequate veterinary service are major deficiencies. However, in recent years many states have moved to correct these deficiencies by organizing reporting systems, constructing model animal disease diagnostic laboratories and establishing new schools of veterinary medicine.

What progress is being made in controlling these diseases?

Near the turn of the century a cattle disease, Texas fever, threatened the Southern cattle industry. A physician

and two veterinarians with the support of rural groups discovered the tick to be its vector. The discovery not only made Southern cattle raising more successful but unlocked mysteries to such other vector-borne diseases as malaria, yellow fever, typhus, Rocky Mountain spotted fever and plague.

Bovine tuberculosis is a major zoonosis throughout the world. In many European countries 15 to 30% of the cattle are infected. In America, Canada and Scandinavia, incidence of bovine tuberculosis has been reduced and it is no longer a serious animal or public health problem. This achievement has been responsible for economic gains as well as the disappearance of bovine tuberculosis particularly in farm children. It is estimated that bovine tuberculosis eradication in this country saves one hundred fifty million dollars a year. Occasional cases are still found in humans and cattle, which emphasizes the need for constant surveillance and periodic retesting of cattle. The incidence is still high enough to be dangerous, but low enough to be difficult to detect and eradicate completely.

Brucellosis — undulant fever — is worldwide and probably causes more incapacitating human illness and economic livestock losses than any other zoonosis. But it, too, is becoming a diminishing public health problem in the U.S. through the use of pasteurized milk and determined efforts of agricultural interests to prevent the losses incident to it. The big push for nationwide eradication began in 1954 with an appropriation of $15,000,000 by Congress to the United States Department of Agriculture for the expansion of the brucellosis eradication project. As a result of this drive, on September 30, 1958 fourteen states were certified free, with less than one percent of cattle and five percent of herds infected. Many other states are close to joining this select group.

The only way to prevent human brucellosis is to eradicate the disease in animals. The primary source for humans — ingesting raw infected dairy products — has largely been removed by the enforcement by local health departments of milk ordinances requiring pasteurization. The most frequent source of human brucellosis today is contact with infected animals. Young adult male farmers are particularly susceptible but all farmers, dairy workers, veterinarians and employees of packing houses suffer great exposure. If national progress continues, the day will soon come when the diagnosis of brucellosis in humans will be a medical rarity and the $100,000,000 annual economic loss prior to 1954 will be history.

Today many veterinarians feel Leptospirosis is the No. 1 economic livestock disease. Like brucellosis, it has serious public health significance and finds its reservoir in many species of animals, most important of which are rats, mice, dogs, hogs, cattle and horses. Humans are usually infected through contact with water, food or other inanimate objects which have been contaminated by the urine of infected animals, rather than by direct contact. There are many species of the causative organism. One serious form of the disease in man is infectious jaundice. Other forms produce meningitis and respiratory symptoms.

In cattle or hogs the disease resembles brucellosis in many ways, causing abortions, but frequently the symptoms are mild or inapparent. In dogs one type of the disease causes considerable mortality.

Leptospirosis is a hazard to certain occupational groups, particularly farmers. Control programs are underway to free dairy cattle by eliminating serological reactors and through use of vaccines. A great deal about the disease is still unknown.

In Q Fever the name "Q" stands for Queensland where the organism was first recognized or for "query" because of its many unknown factors. Q Fever apparently does little or no harm to most animals; however, cattle, sheep and goats transmit it to humans, causing an atypical pneumonia which is often difficult to treat. The mode of transmission is still unknown. Research

in California has offered impressive data that cow and goat's milk may be an important source of human infection; but most researchers believe Q Fever is mainly an airborne disease. Much work must be done before the question mark is removed from Q Fever and the impact felt by rural human populations can be removed. Presently there is little interest in controlling the disease because infected animals are not visibly affected.

Doctor Carey P. McCord, former Director of Industrial Health for the Chrysler Corporation, has urged a more active interest in the zoonoses from an occupational disease standpoint. His major reasons are: the number of workers contracting brucellosis in packing houses; the incidence of ornithosis in poultry dressing plant employees in Texas and Oregon; the fact that many zoonoses may be classified as hazards to some occupations on the farm and farm related industry. The Bureau of Labor Statistics shows that the number of hazards in the poultry industry rates third highest of one hundred thirty-five manufacturing industries reported, exceeded only by rates for logging and sawmill operations.

Primary human needs are food, shelter, health and recreation. Health is dependent upon proper food and shelter, and over two-thirds of the world's population is underfed and poorly sheltered. Feeding the expected population in this country alone in 1975 will require a forty percent increase in livestock production above the 1953 levels. A former Director General of the Food and Agriculture Organization commenting on the magnitude of this world-wide problem said, "It is not the atomic bomb, but the food crisis that may destroy us."

We can help alleviate this problem if rural agricultural groups and the veterinary profession work to control the devastating livestock diseases that cause colossal losses of milk, meat and eggs. Success in this fight requires the full support of an awakened public opinion.

With Your Apron On Or Off

By Mrs. Kenneth D. Schneider
Nashville, Indiana

When you picked up your program and saw my title "With Your Apron on or Off," you probably wondered whether it was a kitchen or nurse's apron. In my case it is both, and I'm finding a rich and happy life living in a southern Indiana rural community of 526 people with my doctor husband and three young sons, where we have made a home for ourselves in a small town that needed a doctor.

How did we get there? A small sign on the bulletin board of the interns' hangout described Brown County, Indiana, where there were no doctors and no hospitals. My husband formed a partnership with his doctor roommate who also married a nurse, and the four of us moved to Brown County. We hung up the shingle in an upstairs makeshift office.

Kenny is a general practitioner in every sense of the word; he does minor surgery, prescribes pills, delivers babies, makes home calls, takes an active part in community life, witnesses wills, gives advice on family problems and sometimes acts as family confessor. We know our patients by their first names and we like it that way.

I was Kenny's office nurse until less than twelve hours before our first boy arrived. Although I am no longer the office nurse, our big kitchen serves as an emergency first-aid-station. If Billy Jones cuts his head and the doctor isn't around, his mother brings him to my kitchen door knowing that I can give first-aid and hoping that the doctor will soon be home.

Our venture in rural practice has

Paper presented at 14th National Conference on Rural Health, Wichita, Kansas, March 5-7, 1959, sponsored by the American Medical Association Conference on Rural Health.

paid off professionally, personally and financially. It might be hard for you to believe two doctors can make a living in a small community but within eight years we opened our new office building clinic and in three short years have expanded to include a busy young dentist. Our office is in modern design, made of stone with rustic siding. It is completely air conditioned and has ample parking space. There is an entrance for the patients and a large waiting room. In addition to a private office, we have four examining-treatment rooms, a pediatrics room, physio-therapy room, x-ray room, minor surgery room, drug room and a lab. Patients never leave by way of the waiting room. There is a separate exit, and they can pay their bills, make other appointments, or make financial arrangements without those waiting to see the doctors hearing their discussions.

Our doctor partnership assures us that our patients will always be taken care of and Kenny still has time off for his family, music, stamp collection and golf. The partnership is strictly a 50-50 arrangement that includes work, income, vacations and post-graduate time. We can look at the calendar and plan ahead for the things we want to do with the fifteen nights, four Thursdays, two Saturday nights, and two Sundays of every month that are ours while our partner covers the practice. He and his family have the same amount of time for their pleasures, and while we are enjoying ourselves it is comforting to know that the patients are being taken care of.

Nashville opened its heart quickly to welcome us as newcomers. We enjoy working in the church, with the Lions' Club Annual Fair and all of the community's projects. We have made many friends, and incidentally, friends do make good patients.

We believe we do better financially than doctors in larger cities. We do not own Cadillacs, but we have a couple of late model cars and an almost new home just four blocks from the heart of the village and Kenny's office. Today the small community offers you everything you can find in a large city. You have every possible modern convenience for both your practice and home and you can get on your feet much more quickly than in the average city. You have wonderful opportunities for social life if you are willing to become a part of the community and accept the people as they will accept you.

Our community offers human interest, too. One December I went with Kenny to make a home call, and we found a family living in an old one-room school building. As we drove into the yard on this bitter cold day, I saw five poorly clothed children playing there. It was evident that they were cold and had not had a bath in no telling how long. I got acquainted with them while Kenny was inside treating their father who was a cardiac with only a short time to live, and they said they were playing out in the cold "cause Daddy's sick and we don't want to bother him." I found out from the county nurse that the children wouldn't have a Christmas and decided to do something about it. I secured good used clothing for them from friends and the following Saturday I picked up the children and brought them back to town with me. First I took the four boys to the barber shop and then to the coach, who had promised to scrub them up. I took the little girl home with me. When they were all dressed in clean, warm clothing we went to a restaurant for a good meal. When the restaurant owner found out what was going on, he wanted to donate the food, but I decided it was my project and refused, so he went to town and returned with a doll for the little girl and games and books for the boys. Before the day was over, many in the community were helping to make that a Christmas those children will never forget.

From this beginning, the community started "Operation Big Heart." It was surprising to us to find out that we had families such as this in our county. The plan has grown until last year

we took in enough money to not only take care of our families at Christmas but give them assistance throughout the year. This is one of the joys of being a part of a small community where you can work shoulder to shoulder with your patients and friends to make the community a better place in which to live. What is more interesting in life than the feeling of accomplishment and building!

Kenny and I have a good time being a part of and serving our community. We're happy and wouldn't change our lives for any other.

North Carolina Hospital Food Service Institute

The eighth annual North Carolina Hospital Food Service Institute is to be held at North Carolina State College, Raleigh, April 6, 7 and 8. This Institute is planned for food service supervisors employed in hospitals having twenty beds and over. Particular emphasis will be placed on helping the supervisor who serves in an administrative capacity. Certificates will be given to those attending the entire Institute.

Miss Myrtle B. Van Horne, Project Director, Food Service Supervisor Program, American Dietetic Association, will participate in the program and will also serve as a consultant throughout the Institute. Several of the program highlights include: a discussion on "Being a Better Supervisor"; a demonstration on The Use of Nonfat Dried Milk in Budget Menus; group discussions on planning the diabetic diet; and a presentation of quality food versus food costs.

The registration fee is $7.50 for persons working in North Carolina and $10.00 for out-of-state registrants. North Carolina hospitals will receive announcements. Food service supervisors working in other states who would like to attend are asked to write to the North Carolina Hospital Food Service Institute, State Board of Health, Raleigh, North Carolina.

This Institute is co-sponsored by the North Carolina Hospital Association, the North Carolina Dietetic Association and the North Carolina State Board of Health.

Notes and Comment

UNIVERSAL IMMUNIZATION AGAINST LOCKJAW URGED

Universal immunization against tetanus, or lockjaw, has been recommended by a researcher at Walter Reed Army Institute of Research.

In a report prepared for the American Medical Association's Council on Drugs, Dr. Geoffrey Edsall said, "Since all human beings are subject to some chance of contracting tetanus, all people should, ideally, be immunized with toxoid."

The "ubiquity in nature" of the tetanus bacillus is not always fully recognized, he said. It is present everywhere and every wound offers a chance for infection with the disease.

However, adequate immunization against tetanus may be achieved with a variety of separate or combined preparations. Tetanus toxoid (made from the bacillus and injected into the human, where it causes the body to develop defenses against the disease) is one of the most effective and safest immunizing agents known, Dr. Edsall said.

This was proved by experience in World War II, he continued. The tetanus rate of the U. S. Army, which in World War I was approximately 13 per 100,000 injuries, fell to the "incredibly low level" of 0.44 per 100,000 injuries (12 cases in over 2,500,000 injuries).

Basic immunization requires an initial injection of toxoid followed by a reinforcing dose 6 to 12 months later. Immunity, once established by adequate basic immunization, should be maintained by periodic booster shots at intervals of four or five years, he said.

Universal immunization would pre-

vent practically all cases of tetanus which might otherwise follow trivial or unrecognized wounds. Recognized wounds must be treated individually; the most important procedure in handling tetanus-prone injuries, regardless of immunization, is adequate cleaning of the wound, he said.

While universal immunization is desirable, it probably cannot be readily achieved in the immediate future, Dr. Edsall said. Therefore, he recommended that attention be focused on those groups in whom tetanus immunization is especially indicated. They include:

—Persons, such as farmers, hunters, or operators of heavy machinery, who are subject to an apparently greater than average risk of tetanus-prone injuries.

—Military persons.

—Allergic individuals or those who are sensitive to horse serum preparations. Tetanus antitoxin, the rapidly acting substance which produces a temporary passive immunity to the disease, is made from horse serum.

—Groups readily reached en masse through child health programs or industrial health programs.

DON'T UNDERESTIMATE CHILD'S INTELLIGENCE

Don't put three strikes against your child's mental ability until he—or she—has had a chance to go to bat, Willard Abraham, Ph.D., of the special education department, Arizona State University, cautions parents in Today's Health, an American Medical Association publication.

Dr. Abraham is disturbed by parents who believe a child is mentally retarded when he really is not.

"Few of us are objective about our own," writes Dr. Abraham. "We see them as we want them to be or as we fear they are, but seldom as they really are. We usually enjoy thinking they're bright (whether they are or not) and that error may result in undue pressure, frustration, and disappointment. But even more serious is the error of underestimating our child's intelligence, and not recognizing the importance of it."

Dr. Abraham devised a check list to aid parents who may be too close to their children to see them accurately.

"It is especially effective for those of kindergarten age or slightly older," he said, "and will help differentiate the youngsters who are among the less bright from those who seem to be retarded but actually might be near the top of the scale."

There's a caution sign attached to Dr. Abraham's check list statements: It's the idea that counts. The first part, taken by itself, may be a bit disturbing, so no conclusions should be drawn until the second part is read.

The question parents should ask is "Do both parts of the statement apply to my child?" For instance:

(1) He has a short attention span—doesn't stick to a task very long—but (2) he has many interests or hobbies as he jumps around mentally, hopping from one to another.

(1) His vocabulary often has a one-syllable limitation, but (2) once in a while he surprises you by accurately using words like **practical, jet propulsion, historical** and **realistic.**

(1) He seems to demand countless explanations of why he should brush his teeth, eat balanced meals and wash his hands before eating, but (2) you get the feeling he was pulling your leg all the time when you overhear him patiently explaining these important facts of life to his little brother or sister, using terms much more understandably than you did with him.

Dr. Abraham calculated one "yes" answer on the 10-point list should give you an inkling that you've been wrong about your child; two to four should provide "concrete assurance," and five or more "yeses" ought to have a parent smiling inwardly with a secret apology because his child is brighter than he thought.

Once the problem of supposed mental retardation is out of the way, Dr. Abraham urged parents to refrain from over-attentiveness as a child learns to stand on his own two feet.

OUTLOOK MARKEDLY IMPROVED FOR STROKE PATIENTS

An estimated two million persons who have suffered strokes are alive today, and the outlook for stroke patients has "markedly improved" in the past five years, a New York heart specialist reported.

In an interview reported in Today's Health, published by the American Medical Association, Dr. Irving S. Wright, Cornell University Medical College, New York, said that even in 1954 "the approach of the medical profession was one of hopelessness. It was just too bad but the stroke patient was stuck with what he had."

Now, he added, "a great catalytic movement is taking place." Hundreds of researchers are working in the field of strokes, and both knowledge and treatment of stroke conditions have advanced a great deal.

Dr. Wright said that figures from a 10-year study by Columbia and Cornell Universities and Bellevue Hospital on treatment of the acute phase of first strokes, "suggest that for survival alone there's an improvement of about one-third by using anticoagulants in treatment of thrombosis."

The figures, he added, are almost the same as those from a study of the treatment of coronary thrombosis with anticoagulants made under the auspices of the American Heart Association.

Anticoagulants activate blood enzymes which tend to disintegrate blood clots. For long-term treatment, they can be taken orally, Dr. Wright said.

Tracing the development of strokes, Dr. Wright pointed out that they are caused when a blood vessel supplying the brain becomes clogged, usually with a blood clot. Innumerable combinations of brain and body damage can occur. Depending upon which area of the brain is affected, a person may have a stroke without knowing it. When blood from a clot leaks into the brain area, a hemorrhage occurs.

Men, especially those with hardening of the arteries, seem to develop stroke symptoms earlier than women, he added. The sex difference tends to even up to some degree after menopause because women lose protection from their hormones.

"Anticoagulants will be much more widely used, as with heart disease," predicted Dr. Wright. "I think it can be said that the risk of a second stroke can be reduced markely by keeping the patient on anticoagulants, provided that the original stroke was due either to an embolism [clot carried by the blood current] coming from the heart or to a clot forming within the brain."

Anticoagulants should never be given to a patient with a hemorrhagic or "bleeding" stroke, he cautioned.

Dr. Wright made these other observations about strokes:

Rehabilitation: "Workers are most enthusiastic about their ability to get the patient to utilize muscles and nerves which are intact. Further studies are underway. But the patient must still know he is wanted in order to have the will to get well."

Stress: "Some physicians have taken the position that heart attacks, like strokes, are largely produced by . . . stress in our civilization. I doubt this. The evidence for this is poor and there are many other factors, such as hormones or diet, for which the evidence is far better."

Diet: "I don't think we're yet in a position to advise a drastic change in our national diet." However, obese persons or those with high blood cholesterol should keep their fat and cholesterol intake down.

Exercise: Physical exercise within reason is good for people. The evidence suggests that this does them no harm and may even help to protect them against heart attacks and strokes. After such attacks, of course, activity has to be well controlled."

RAVDIN REPORTS ON CURRENT TREATMENT OF BURNS

The many ointments recommended for the treatment of major burns are of "little practical value," according to Dr. Isidor S. Ravdin, Philadelphia surgeon.

In a report prepared for the American Medical Association's Council on Drugs, Dr. Ravdin said, "In fact, many of the agents which have been used to promote healing have been shown to be detrimental to epithelization [skin growth]."

"The only worthwhile place for a specialized burn ointment (if such an ointment exists) seems to be on a small superficial burn for the immediate relief of pain," he continued.

The best dressing for a serious burn is "still a fine-mesh gauze lightly impregnated with an innocuous bland ointment," he said. However, the "open method of treatment," in which no dressing is used and the dried skin serves as the bandage, is gaining more and more acceptance.

Dr. Ravdin's report on the current status of the treatment of burns appears in the A.M.A. Journal.

He pointed out that antibiotics have little value in the local care of the burned wound; however, the general use of them to prevent overwhelming systemic infection is of great value. One of the most frequent causes of death in serious burns is from a late-developing general infection.

The use of cortisone and corticotropin has been discontinued almost entirely, he said, since they have been proved to be of no use in speeding healing.

The best method of cleaning the burned area, if this is necessary, is still by washing with surgical soap and sterile water or a salt solution. The best way to remove foreign material and dead skin is still achieved by time or the surgeon's scalpel, he said.

One of the most difficult problems in serious burns is the treatment of shock. This is handled by the giving of fluids—plasma, whole blood, water or salt solutions, usually intravenously.

Large quantities of salt are necessary in the early phase of treatment because of the rapid loss of sodium by the body. If the salt solution can be given orally, a weaker solution not only is better tolerated but also eliminates the necessity of giving extra water intravenously.

Local agents to control pain are no longer used. Gentleness in the care of the patient and early removal of dead skin, with early grafting of new skin, provide the best means of making the patient comfortable, he concluded.

Dr. Ravdin is professor of surgery at the Hospital of the University of Pennslyvania.

URANIUM MILLING SAFETY RULES OUTLINED

Even though uranium compounds are probably no more dangerous than lead or mercury during mining and milling, they still "should be treated with a good healthy respect," according to an Atomic Energy Commission report.

Appearing in Archives of Industrial Health, published by the American Medical Association, the report said the "cavalier treatment" exercised by many employees in uranium processing plants indicates a complete lack of respect.

These employees should be instructed in sound health and safety procedures, the report said.

It is a summary of a health study of uranium mills conducted by W. B. Harris, A. J. Breslin, H. Glauberman, and M. S. Weinstein, of the AEC Health and Safety Laboratory, New York.

The mining and milling of uranium ore presents one of the most important potential hazards in those industries involved with radioactive materials, the report said. It is one of the fastest growing industries within the whole radioactive material area.

Commercial deposits of uranium ore are widespread, with eight western states having significant reserves of the ore. The milling of uranium ore is assuming the proportions of a fairly large business, the report said.

In 1950 there were six uranium mills employing something under 1,000 persons. There are now 20 such mills and in the very near future there will be 25, employing about 4,000 persons.

When the study was conducted in 1957, there were 12 mills.

Most of the radiation readings taken in the plants indicated acceptable radiation levels, the report said. However, the exposure to radioactive dust was in general higher than is permissible. Better ventilation would correct this in most cases, the report said.

Another hazard found in the plants was that from ordinary chemicals. This hazard exists in all metallurgical operations and must be handled according to the type of chemical.

In addition to recommendations for improving exposures in specific areas of the mills, the report listed several recommendations. These include:

—The entire premises should be routinely cleaned to remove all settled dusts from the floors, walls and rafters. This is done best with vacuum hoses, although wet cleaning may be more practical in certain areas.

—Until adequate ventilation is provided, all operators should wear respiratory protective equipment while performing dusty operations.

—The operators should not eat in the plant processing areas.

—Limited access—to authorized persons only—should be maintained in all ore and tailings storage areas. They should be posted and fenced.

—Care should be taken to limit the discharge of solid wastes to local ground waters. This part of the study is continuing.

SMOG AGGRAVATES LUNG DISEASE

Los Angeles smog aggravates at least one serious lung disease and a filtered air system should be used to alleviate the problem, three University of Southern California researchers have declared.

Writing in the Journal of the American Medical Association, Drs. Hurley L. Motley, Reginald H. Smart, and Charles I. Leftwich said the severity of emphysema is aggravated by the type of smog that occurs in Los Angeles.

They pointed out that the composition of smog in Los Angeles differs from that found in other cities, such as St. Louis, Pittsburgh or New York. They said there is no coal smoke in Los Angeles where the major source of smog is the exhaust from three million cars.

No important lung changes were observed in those with no significant emphysema during studies conducted over a three-and-one-half year period, they said.

The researchers also found that there was a lag of two days before the severest effects of the smog were felt by the emphysema sufferers.

Activated carbon filters were recommended for use both at home and in the office by patients with severe emphysema residing or working in smoggy areas.

"The adverse effect of smog as demonstrated in this study provides a rational basis for the use of carbon filters and justifies their expense," they said.

Significant improvement was noted in persons with severe emphysema after filtered air was supplied to replace the smoggy air. The researchers said 40 to 50 hours were required "to obtain the maximal reversal of the changes resulting from prolonged breathing of smoggy air."

The studies were conducted with the cooperation of 66 volunteers. Forty-six of the volunteers had emphysema, a condition in which the lung's air sacs are enlarged and the walls of the air sacs are wasted away.

Although the ever-irritating effect of smog is often obvious in the Los Angeles area, the presence of a significant deleterious effect on breathing has not been so generally recognized," they said.

"The major health problem at present relates to the effects of the pollutants in the atmosphere at lower concentrations than the alert level (0.5 ppm of ozone) and for prolonged periods of time," they concluded.

SMOKING HAS NO EFFECT ON CHOLESTEROL LEVEL

Smoking appears to have no effect

on blood cholesterol levels, according to a study conducted by Dr. Irvine H. Page, Cleveland heart specialist, and two associates.

If smoking does play a role in causing heart attacks, it is not through any effect on cholesterol, the fat-like substance in the blood that has been implicated as a cause of heart attacks, they concluded on the basis of their study.

Writing in the Journal of the American Medical Association, Dr. Page said it has been suggested that cigarette smoking is in some way related to heart attacks and hardening of the arteries, but this is difficult to prove.

Many investigators believe the evidence is good for an association between high cholesterol levels and hardening of the arteries. So if it could be shown that cigarette smoking is followed by a rise in cholesterol levels, this could be interpreted as evidence for a relationship between smoking and hardening of the arteries.

However, the new study failed to show a rise in cholesterol levels after smoking.

Twenty laboratory personnel, including 15 regular smokers and five nonsmokers, participated in the study. They smoked two non-filtered cigarettes within a 10-minute period, inhaling deeply. Blood cholesterol levels were measured before they smoked and at 10- and 30-minute intervals afterwards.

The levels remained "essentially unchanged" in most subjects. There seemed to be no greater variations in the habitual smokers than in the nonsmokers.

The lack of effect of smoking on the cholesterol levels in the nonsmoking persons was striking, the authors said. They had smoked two cigarettes with inhaling, and this could be considered to be "a not inconsiderable stress." At the end of the smoking they felt dizzy and chilly, but showed no cholesterol level change.

The study showed the relative stability of serum cholesterol levels, at least for short periods. The slight stress of blood drawing or smoking was not sufficient to modify them, the authors noted. The long-time effect of smoking on serum cholesterol is not known, but it is possible that varying cholesterol concentrations may result from changes in eating habits caused by smoking, they said in conclusion.

Dr. Page's associates are Lena A. Lewis, Ph.D., and Mohammed Moinuddin, Ph.D., of the Cleveland Clinic Foundation.

TRANQUILIZER, ALCOHOL COMBINATION IS DANGEROUS

If a person is taking the tranquilizer chlorpromazine, he must be very careful about drinking alcoholic beverages, a group of Indiana researchers warned recently.

A study at Madison State Hospital, Madison, Ind., indicates that chlorpromazine increases the physiological effect of alcohol, and the two, in combination, affect coordination and judgment even more than alcohol alone.

Chlorpromazine, one of the first tranquilizers to be developed, is most commonly used in mental institutions and by discharged mental patients.

The alcohol-chlorpromazine combination is especially dangerous when a person drives, the researchers said. When a physician prescribes the drug, he must be sure to warn his patients of the possible danger of the use of alcohol, they said in a report in the Journal of the American Medical Association.

The researchers gave alcohol and chlorpromazine alone and in combination to 24 persons, including 18 hospital employees and six patients. They performed a variety of tests, including a tweezer dexterity test requiring that tweezers be used by the non-preferred hand to insert 16 steel pins in a square, a braking reaction time test and a mental addition test.

All the subjects showed the worst scores after taking both chlorpromazine and alcohol. They made their best scores when they had received imitation pills and liquids.

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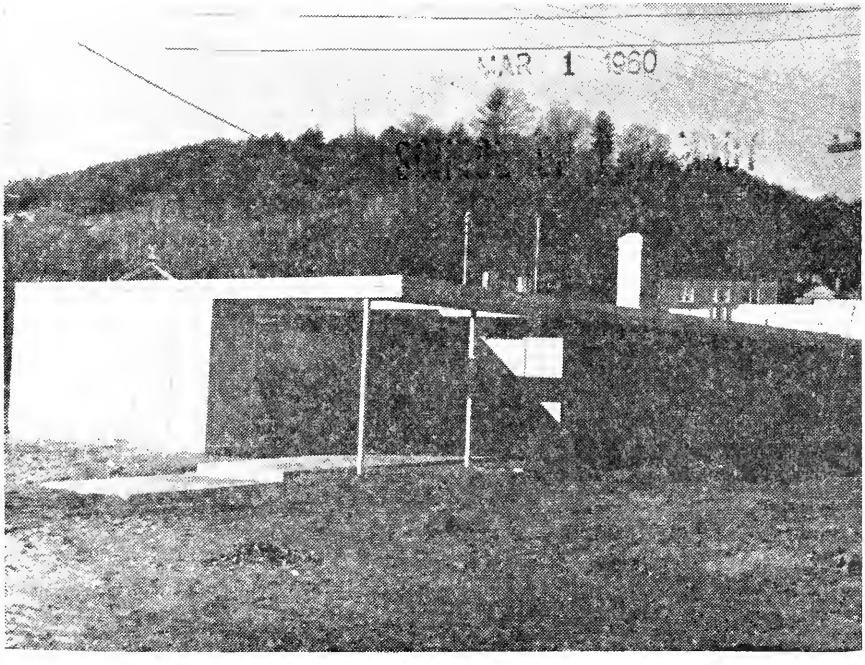

MITCHELL COUNTY HEALTH CENTER
BAKERSVILLE, NORTH CAROLINA

CONTENTS

Progress In Health Affairs In North Carolina

By D. S. Coltrane,
Assistant Director and Budget Officer,
Department of Administration,
State of North Carolina

Every citizen of this state is entitled not only to life, liberty, and the pursuit of happiness, but also to good health in order that he may properly enjoy these blessings—not as a matter of charity but as his inherent right.

We have in North Carolina a State Health Department which is regarded as among the very best in the United States. During the last fiscal year more than $11,000,000 was budgeted for all public health activities in this State.

Let us consider briefly some of the gains we have made in North Carolina that might be attributed to public health. As compared with our general death rate of more than 14 per 1,000 in 1917 and nearly 18 in 1918, North Carolina's death rate last year was only 8.0 per 1,000 population, which was the lowest in the history of the State. We should do everything within our power to preserve that record; yes, to lower it.

In 1917 North Carolina's infant mor-

Excerpts from address at the 1959 annual meeting of the North Carolina Health Council.

tality rate was nearly 100 out of every 1,000 babies born. Last year it was just 32.6. Another encouraging achievement in North Carolina last year was the reduction of the maternal death rate to 5.7 for each 10,000 live births, which was also the lowest in the State's history. These declines in maernity and infant mortality have been brought about largely through the work of your local health departments.

Tremendous gains have also been made in conquering other diseases such as smallpox, typhoid fever, malaria, diphtheria and tuberculosis. The use of Salk vaccine has greatly reduced the number of poliomyelitis cases. This year North Carolina gained the distinction of being the first State in the Union to pass a law requiring vaccination of children against polio.

Much of the success of the public health program in this State is attributable to the fact that North Carolina is the most autonomous State in the Union in the administration of its public health affairs. The local units are free to carry on their affairs to the best interest of the various counties and sections involved.

Mental Institutions

North Carolina is not neglecting other areas of health care, either. At the present time, the State is caring for approximately 11,000 mentally ill patients, and the capacity for the mentally retarded is now 3,700 and will within the next 2 or 3 years be increased to approximately 5,400.

We have gradually changed from custodial to therapeutic care in our mental hospitals. During the past two years we have discharged more patients from our mental hospitals than we have admitted. We no longer have waiting lists, although 4,000 more patients per year are being treated in our facilities than were treated 10 years ago. The extension of our Medical School at the University of North Carolina to a four-year school is enlarging our potential for treating the mentally ill.

Capital improvement expenditures at State mental institutions from 1949 to 1959 amounted to approximately $50,000,000. Expenditures for operations at the State's mental institutions for fiscal year 1959-60 will amount to approximately $21,000,000,000, compared with $7½ million ten years ago.

Tuberculosis Institutions

Nor is North Carolina neglecting its citizens who are afflicted with tuberculosis. In fact, this State was one of the first to adopt the concept that tuberculosis is a State responsibility.

The State progressed steadily and in the early 1940's, the State embarked on a 10 million dollar expansion program which provided for the enlargement of the three existing hospitals and the construction of a fourth one at Chapel Hill, a special teaching and research unit.

During the early 1950's, the State's facilities became adequate (1) to eliminate all waiting lists, (2) to accommodate all patients who were then hospitalized in county-owned sanatoria, and (3) to promptly admit all tuberculosis suspects, which made it possible to begin treatment of those suspects while the disease was in the early stages. Consequently, the patient turnover increased and the average stay decreased. Thus, it became possible for the hospitals to keep pace with the Health Department's intensified mass protection program—in other words, the increased patient turnover enabled the hospitals to admit far more than they were able to admit before the average stay was reduced.

During the last ten years admissions to the State's tuberculosis hospitals increased from almost 1100 per year to almost 2800, or 2½ times, but the patient census only increased from 1,000 to 1,300, because over-all average stay of these patients declined from about 15 months to 6 1/3 months. Also, the State's death rate from tuberculosis per each 100,000 population declined from about 25 to about 5 and the States' incidence rate, or new cases, reduced from about 88 to about 35 per 100,000 population. The consensus of those engaged in tuberculosis work is that this decline of the incidence rate, which is a reliable barometer, will continue to offset the State's population

growth and thereby prevent the patient census from increasing—with a possible leveling off at about 1,000 patients. State appropriations to the sanatorium system have increased from $2,000,000 in 1940 to approximately $5,000,000 in 1959.

Other Health Facilities

During recent years new general hospitals, health centers, special hospital projects and nurses' residences have sprung up all over the State. Ten years ago there existed in the State 122 general hospitals embracing some 9,000 beds, of which more than 5,000 were low-grade, unacceptable beds. Since that time new facilities sponsored by the Medical Care Commission and using local, State and Federal funds, include 157 general hospital projects with about 16,000 beds. Other projects include 5 chronic disease centers, 5 rehabilitation facilities, 12 diagnostic and treatment centers, 45 nurses' residences and 84 public health centers. North Carolina has the second largest number of Hill-Burton public health centers in the country. A total of $149,745,000 has been expended for these facilities, of which more than $18,000,000 was contributed by the State.

There are at present in North Carolina three 4-year medical colleges: Duke, Bowman-Gray and the University of North Carolina. We have more than 30 hospitals which train nurses and there are 4 collegiate nursing schools.

Sanitation Amendment Concerns Outdoor Dining

The following Amendment to the Rules and Regulations Governing the Sanitation of Restaurants, Temporary Restaurants, Food Stands, Drink Stands, and Temporary Food and Drink Stands, Establishing Standards for Outdoor Dining, was adopted by the North Carolina State Board of Health on October 29, 1959:

AMENDMENT TO THE RULES AND REGULATIONS GOVERNING THE SANITATION OF RESTAURANTS, TEMPORARY RESTAURANTS, FOOD STANDS, DRINK STANDS, AND TEMPORARY FOOD AND DRINK STANDS, ESTABLISHING STANDARDS FOR OUTDOOR DINING

For the purpose of carrying out the provisions of Article 5 of Chapter 72 of the General Statutes of North Carolina, the North Carolina State Board of Health hereby adopts the following amendment to the rules and regulations governing the sanitation of restaurants, temporary restaurants, food stands, drink stands, and temporary food or drink stands, which were adopted at a meeting of the North Carolina State Board of Health on July 17, 1958 at Raleigh, N. C., and became effective October 1, 1958:

SECTION 1. AMENDMENT—Section 6 of said rules and regulations is hereby amended by adding the following at the end of Item 19, Section 6 immediately preceding the words "Section 7":

OUTDOOR DINING: — Establishments desiring to operate so-called "roof garden" or "patio" dining rooms in addition to conventional dining rooms may be given tentative permission to do so if the sanitarian finds, after a careful appraisal of the individual site, that all of the following supplementary requirements can be complied with:

(a) The dining area is fenced or otherwise protected to exclude animals, fowl and pedestrian traffic.

(b) Toilet and lavatory facilities are accessible and convenient.

(c) The dining area is reasonably free from dust, smoke, soot and objectionable odors.

(d) The immediate vicinity is free from sources of fly breeding and mosquito breeding.

(e) There are no outdoor food serving facilities or stations and no outdoor cooking facilities.

(f) All necessary insect-control measures will be instituted by the management to provide effective control of flies and mosquitoes.

Whenever tentative permission is given for the operation of outdoor dining areas, it should be understood that such permission will be withdrawn promptly if flies are found to be prevalent or the other requirements given above are violated.

SECTION 2. EFFECTIVE DATE.—This amendment shall be in full force and effect from and after January 1, 1960.

The foregoing amendment was adopted at a meeting of the North Carolina State Board of Health on October 29, 1959 at Raleigh, North Carolina.

The above amendment was called to the attention of local health directors and sanitarians in the following memorandum from J. M. Jarrett, Director of the Sanitary Engineering Division of the State Board of Health:

"Enclosed is an amendment to the Hotel and Cafe regulations, effective January 1, 1960, which will permit restaurants to operate outdoor dining rooms, in addition to conventional dining rooms, under certain conditions.

"As you know, the question of outdoor dining has been discussed for many years, such places have existed in other States, and a few North Carolina restaurants have operated outdoor dining areas from time to time under special conditions with apparently satisfactory results.

"In recent years there has been increasing interest in 'outdoor dining.' Many families prepare meals outdoors on charcoal grills. Conventional 'drive-in' restaurants are serving a greater variety of food items to patrons in cars. It is therefore not surprising that more restaurateurs are becoming interested in providing outdoor dining facilities.

"During the past summer, our staff members and the local health departments investigated several proposals for outdoor dining areas. It appeared to us that three conclusions were warranted: (1) The act of eating outdoors is not, per se, a health hazard which should be prohibited by the restaurant regulations, (2) outdoor dining is acceptable from a sanitation standpoint if proper conditions prevail, and (3) the 1958 restaurant sanitation regulations, which do not specifically permit or prohibit outdoor dining, should be modified so as to give specific guidance to sanitarians and the restaurant industry.

"Accordingly, the matter was presented to the State Board of Health, which considered it and adopted the attached amendment at its meeting on October 29, 1959.

"Sanitarians should study the amendment carefully in order that they may properly interpret and explain it to restaurant operators. If you have questions, we will be glad to discuss them with you, and our District Sanitarians are available to assist in explaining the application of the new provision in specific establishments."

Notes and Comment

ACCIDENTAL POISONING CASES ARE ON THE INCREASE

An official of the New York City Department of Health has termed as "alarming" the increasing number of fatalities from accidental poisonings.

Dr. Harold Jacobziner, assistant commissioner of the department, called for a broad educational campaign to alert the nation to the dangers of poisoning from drugs and household products.

Writing in the Journal of the American Medical Association, Dr. Jacobziner said, "Fourteen hundred fifty deaths were reported in the United States last year from poisonings by agents other than poison gases and spoiled food. Over 400 of these deaths were in children under five years of age.

"More children under five . . . died

last year in New York City from accidental chemical poisonings than from diphtheria, poliomyelitis, rheumatic fever, scarlet fever, and other streptococcic infections combined.

"The alarming increase in both fatal and nonfatal poisonings is related to the rise in new products and to the increase in the population risk."

The doctor said that "internally taken drugs caused nearly 50 per cent of all poisonings, with barbiturates and aspirin as the chief offenders. Next in frequency were poisonings due to household preparations followed by those with externally applied drugs and cosmetics, pesticides, and miscellaneous products such as lead."

In offering a solution to cut down on the number of such accidents, Dr. Jacobziner said that nearly all poisonings are preventable.

"The most important item in prevention is knowledge and information about the risk involved and the population risk. Regulations and labeling alone will not prevent accidental poisonings but must be coupled with education."

He urged that such an educational program be based on facts, accurate, reliable, devoid of overdramatization, simply told, and pinpointed to the vulnerable groups and the specific hazards.

Key points in such a program, the doctor continued, should include strong emphasis on the need for keeping medications in their original containers and also for keeping all drugs and preparations out of reach of children.

He said that proper labeling of toxic substances, as recommended by the A.M.A. Committee on Toxicology, is exceedingly important. These recommendations are embodied in H.R. 7352 which was introduced in Congress by Representative Thomas B. Curtis (R-Mo.) and is pending before the House Interstate Commerce Committee.

In concluding, Dr. Jacobziner said, "Prevention is possible through education at all levels. Education requires an integrated team approach with the family physician as key member of the team. Accident prevention . . . merits the greater attention and involvement of the practicing physician."

UROLOGIST'S "KNOW-HOW" AIDS SURGICAL PATIENTS

A conscientious physician has come to the aid of the thousands of patients who suffer from the common and distressing condition of urinary retention after surgery.

He is Dr. Myron H. Nourse, a urologist, from Indianapolis.

Dr. Nourse studied the problem, backed up his own findings with the results of a questionnaire which he personally mailed to 151 members of the American Urological Association, and concluded it was time "to organize our thoughts on this subject."

Writing in the Journal of the American Medical Association, Dr. Nourse said that the problems associated with this condition, which so many surgical patients dread, exist largely "because of increased numbers of patients hospitalized and decreased numbers of trained professional help."

Patients unable to void after surgery, in spite of a full bladder, normal kidney function and the absence of any organic obstruction, usually undergo catheterization. In this procedure a hollow rubber tube is used to drain urine from the bladder.

"Is this procedure really necessary?" Dr. Nourse asked. He said that while the answer must come only from the doctor in charge, his associate, or his assistant, consideration had to be given to many other complex factors, including the type of patient.

He urged doctors not to write out catheterization orders too freely, but to give more realistic personal attention and supervision to the patient.

"Leaving routine postoperative catheterization orders to the interpretation and discretion of the nursing service is a practice to be discouraged," Dr. Nourse said in the Journal article.

Changing trends exist in hospitals today with regard to patient care," he said. "Personal attention to patients' simple wants and needs is often lacking. It is thought to be somewhat 'old-fashioned' to request that a con-

siderate attitude be displayed. For example, many patients could urinate spontaneously after operation if the urinal were present and within reach. Adequate personal preoperative and postoperative instruction to the patient lends confidence and mental tranquillity of a degree far superior to that effected by tranquilizing agents."

Dr. Nourse said that the procedure of passing a rubber catheter is not difficult in experienced hands, but the operation should not be left routinely to orderlies and nurses.

"Real bedside nursing has also become 'old-fashioned' and is for practical purposes a 'lost art,'" he said, adding: "Many tasks, including catheterization, are relegated to nonprofessional nursing help and the new graduate soon finds she has much to learn before she can become a good nurse."

He said that catheterization is not without danger and that, despite the most careful technique, infection of the bladder may follow. He cited this as another reason why catheterization should be in experienced hands.

Dr. Nourse said that preoperative and postoperative discussion between doctor and patient was, in his opinion, the best way to help the patient with this distressing problem. Such discussions and suggestions with 2,000 patients, he said, lowered the percentage of those who had to be catheterized from 18.3 to 1.7.

POINTS UP EARLY SIGNS OF MULTIPLE SCLEROSIS

The nation's general practitioners were urged recently to be on the lookout for early signs of multiple sclerosis when their patients pay them office visits.

Multiple sclerosis, commonly called MS, is a chronic, crippling disease of the central nervous system, usually attacking young adults. It is a "tricky disease" to diagnose, and a Duxbury, Mass., physician, writing in the Journal of the American Medical Association, outlined a number of practical hints that may alert the general practitioner to recognize the condition in its early stages.

MS usually involves a "hit-or-miss" pattern, the Journal article said, and is likened to syphilis, which can imitate any disease.

"I have found," said the author, Dr. Walter E. Deacon, "that, clinically, certain signs and symptoms seem to be more prominent than one would expect from a 'hit-or-miss' pattern."

Dr. Deacon offered the hypothetical case of a patient who walked into a doctor's office and complained of sore throat or an upper respiratory infection. The patient is treated, but returns two or three weeks later, complaining of numbness or weakness of an arm or a leg or of visual blurring.

He said that many physicians might "dismiss the episode with a wave of the arm," but actually these symptoms could be "the initial onslaught of multiple sclerosis in certain susceptible persons." A careful follow-up examination, especially if the symptoms recur, may reveal changes in reflexes or some muscular atrophy or weakness, he said.

Dr. Deacon urged practing physicians to be more patient with neurotics, those people who have a multiplicity of such complaints as aches, pains, weakness, inability to cope with everyday chores and dizziness.

For some unknown reason, he said, these people are particularly susceptible to MS. "Usually the patient has visited every physician within a radius of 50 miles . . . . A carefully taken history, however, may reveal a multiplicity of neurological complaints and a careful examination may reveal changes sufficient to warrant a guarded diagnosis of MS," the Journal article said.

Dr. Deacon stated that frequently early signs and symptoms of MS show up during pregnancy, which is considered a stress state, both mentally and physically. He said that in his own parctice he has seen three cases in 16 in which MS first developed during pregnancy.

Dr. Deacon urged all physicians who practice obstetrics to include a careful neurological examination as a part of their general physical examination in

order to uncover mild or incipient MS.

"A group of neuromuscular defects are so obviously due to disorders of the central nervous system that a glance at the patient determines that further appraisal and referral is necessary," the Massachusetts doctor said in his article, adding: "These include scanning speech, tremor, obvious dragging of a leg or a wasted arm, and marked gait difficulties."

He said that these defects reflect "the insidious, mild, and transient attacks which escape detection unless the physician is alerted to the possibility of MS and a careful follow-up is performed periodically."

CRANBERRY WARNINGS CAUSE UNDUE ALARM

The editor of the Journal of the American Medical Association said recently that the government's recent pronouncements, reflecting certain scientific data and law pertaining to cranberries, charcoal and chickens, have caused undue alarm among the American people.

In an editorial, entitled "Cranberries, Charcoal and Chickens," Dr. John H. Talbott said in the A.M.A. Journal that "if turnips and cabbage were included among the vegetables served or mustard was used as a condiment, minute quantities of aminotriazole might have been ingested by the Pilgrims more than 300 years ago."

Aminotriazole was the dangerous, cancer-causing herbicide which caused the government to impound the nation's cranberry supply shortly before Thanksgiving.

"The analyses, begun in 1956, were sufficiently satisfactory in detecting residues of aminotriazole that the United States Department of Agriculture reported this compound suitable for use on cranberries," the editorial said, adding: "Eighteen months later, early in November of last year, the implication of this compound as a carcinogen prompted withdrawal of all batched cranberries and cranberry products from the open market."

"Little stress," the editorial continued, "was placed on the well-documented evidence that aminotriazole occurs naturally in vegetables, notably cabbage, turnips and broccoli, as well as in mustard or that the antithyroid action is described in current text books of therapy."

Continuing, the editorial said:

"Charcoal—carbon black—came under scrutiny on November 20, 1959. Since few persons are addicted to the eating of licorice or black jelly beans, there was considerably less space devoted in the newspapers to the suspicion cast on carbon black than had been afforded cranberries. Chronologically, it was recorded in the Federal Registry of December 9, 1958, that carbon black was a permissible food adulterant. The omission of this substance from the registry one year later brought apprehension to the makers of licorice candy and black jelly beans since each item relies on licorice for flavor but charcoal for the characteristic color. A fortnight after this action a supplementary document by the Food and Drug Administration permitted the processors and the users of charcoal in food and candies a three-month period of grace to produce evidence that burned toast is harmless.

"Chickens (iatrogenic capons) were under suspicion for only a few days last month. However, neither poultry producers, manufacturing chemists, nor the chickens themselves had violated any federal regulation. Approximately 1% of the chickens eaten in the United States have been given stilbestrol as a fattening hormone. The implantation of pellets of this hormone under the skin at the base of the skull has been an authorized practice for more than a decade. This produces a desired commercial effect, especially attractive to the consumers in New York City and Los Angeles where the caponettes are sold as a premium item. Recent improved tests revealed that residues of the drug remained in the skin, liver, and kidneys. After this disclosure immediate steps were taken to withdraw the caponettes from commerce and to suspend the sale of stilbestrol to the chicken growers.

"When next fall rolls around, we

hope that cranberries will be permitted for the festive dinners, that licorice and jelly beans will be for sale at the candy counter, and that southern fried chicken will be a permissible menu item."

VOLUNTARY CHECK-UPS REVEAL HIGH RATE OF DISEASE

Voluntary physical examinations uncovered a high rate of disease among the apparently healthy general population as well as a select group of business executives, separate studies showed recently.

Both studies were published in the Journal of the American Medical Association.

Taken together they emphasize not only the value of periodic check-ups but the doctor's increasing concern with maintaining the health of the physically fit.

In the first study, 92 per cent of 10,709 apparently healthy persons given overall examinations at Tulane University School of Medicine, New Orleans, were found to have "disease or abnormalities of varying significance."

Much of the disease was in the early stages. Less than one per cent had malignancies, or serious disease.

The persons accepted for examination during a 12-year period from 1946-58 considered themselves well and had not been checked over by a doctor in the preceding six months. They represented all socio-economic levels and many occupations. The majority were between 30 and 49 years of age, and 75.5 per cent were women.

The type of examination was one that could be carried out in a doctor's office, the author of the article, Dr. Joseph E. Schenthal, pointed out.

Dr. Schenthal said the study was part of the current trend in medicine to find out more about the well person.

"With heart, vascular, and malignant diseases as leading causes of death, attention has been concentrated on the detection and treatment of these conditions early in the natural course of development," he said.

In the second study, 1,513 business executives underwent physicial examinations and previously unrecognized diseases were discovered in 40 per cent.

The newly found disease "was believed capable of resulting, if unchecked, in death or major disability in over one-half" (57 per cent) of that number, the Journal article said.

"In one-third (34 per cent) it was judged capable of producing minor disability, while in the remaining 9 per cent the disease was judged insignificant.

"The high prevalence of potentially serious disease in members of the 'executive' category who are of favorable socio-economic and educational status makes it reasonable to expect an even higher prevalence of serious latent disease in the population at large."

The report was based on a study conducted at the University of Pennsylvania Diagnostic Clinic from 1949 to 1958. All but 13 of the executives were men. The average age of the group was 45, with a range from 24 to 76.

Examining physicians diagnosed a total of 906 new diseases among 612 persons. Diagnoses of disease involving the gastro-intestinal tract, numbering 240, predominated, followed by 189 diagnoses involving the cardiovascular system.

The study also revealed that most of the diseases detected were concentrated in a small proportion of those examined. Fifty-four per cent of the disease was concentrated among 13 per cent of those examined, suggesting a pattern of "disease proneness," the researchers said.

"For most of the disease conditions detected (93 per cent) therapeutic measures are available which are considered beneficial," they said.

The study was conducted by Kendall A. Elsom, M.D., Stanley Schor, Ph.D., Thomas W. Clark, M.D., Katharine O. Elsom, M.D., and John P. Hubbard, M.D., Philadelphia.

SIMPLER METHOD DESCRIBED FOR EMERGENCY TRANSFUSIONS

A simplified method of giving blood transfusions in certain emergency cases has been disclosed by two Chicago

doctors.

Writing in the Journal of the American Medical Association, Drs. John R. Tobin, Jr., and Irving A. Friedman described a new way to process transfusions which must be enriched with platelets, a blood component involved in coagulation. Such transfusions are used in emergencies to control bleeding and clotting.

". . . the usual methods for the preparation of platelet concentrates, platelet-rich plasma, or platelet-enriched whole blood incorporate techniques which are not available to the usual hospital blood bank, i.e., low-temperature processing, special anticoagulants, and the immediate availability of compatible blood donors," they said. "The inference that these latter techniques are essential . . . has deprived many hospitals of a valuable therapeutic tool."

"It is our contention that platelet transfusion . . . can be made readily available if the 'bank blood' . . . is used."

The doctors studied 13 patients given processed whole blood from normal donors, compatible with the recipient and in storage less than 48 hours.

They reported that bleeding "was dramatically controlled in five, partially controlled in five, and poorly controlled in three patients."

The doctors concluded that human platelets can be prepared for transfusion "without special procedures or immediately available compatible blood donors" and this should make such transfusions possible in most hospitals.

Dr. Tobin is associated with the departments of medical education and hematology of the Hektoen Institute for Medical Research of the Cook County Hospital and the departments of Medicine of the Stritch School of Medicine, Loyola University. Dr. Friedman is associated with the Chicago Medical School.

ALL SURGEONS SHOULD KNOW HOW TO REVIVE HEART

All surgeons should be required to learn heart resuscitation before operating, a South Carolina doctor said recently.

Dr. William E. Bomar, Jr., of the Department of Surgery, Greenville General Hospital, pointed out that statistics show an apparent increase in the number of cases of cardiac arrest during surgery and said "adequate knowledge of the accepted methods of cardiac resuscitation should be a prerequisite for operating privileges, regardless of the specialties concerned."

Writing in the Journal of the American Medical Association, Dr. Bomar said a combination of factors undoubtedly plays some part in causing a patient's heart to stop during an operation.

"Many people blame the use of intravenously given barbiturates and muscle relaxants, others the use of too many different combinations of anesthetic gases," he said.

However, after analyzing 30 such cases, Dr. Bomar concluded that his study "while limited in scope, points to the lesser importance of anesthetic factors in production of cardiac arrest."

Only four cases involved healthy patients who showed no preoperative warning symptoms, he said, while "in all other cases, serious pre-existing diseases . . . was present."

Dr. Bomar said the proper preparation of the patient before an operation is of the utmost importance despite advances in anesthesia.

"The recognition, prevention, elimination, or control of preoperative factors are important influences on the survival rate," he said. "Also, the elective-surgery: operative-risk relationship should be adequately and honestly evaluated individually."

Co-authors of the article were Drs. William R. Thompson and John D. Ashmore, Jr., Greenville, S. C.

NO SAFETY IN DISTANCE

"You don't have to be near the flame to have a fire snuff out your life!"

The National Safety Council said this to point up arrival of the season when the number of home fire deaths reaches a peak. More than half the year's home fire deaths occur during

four months — December through March.

"Smoke and combustion gases," the Council said, "often are the cause of death in home fires, rather than flames."

Fires are the leading causes of home death to everyone except infants and the very elderly, and are the No. 2 cause of home death to persons of all ages. Home fires take more than 5,000 lives a year and cost the nation billions of dollars.

Your chance of surviving a fire depends on how well you know what to do.

According to the experts, the odds are 1 in 100 that you'll have a home fire during the next year, 1 in 20 you'll have a fire within five years.

Best way to stay safe from fire, of course, is to prevent it before it starts —don't smoke in bed, and have your heating system checked, for example.

If you are unfortunate enough to have a fire, the Council said, your chances of coming out alive are better if you know these facts:

1. It's not necessarily the flames from a fire that kill you. Rising heat and combustion gases are just as deadly.

2. If possible, sleep with your bedroom door closed and the windows open. It will help keep out the lethal gases that can end your life while you sleep.

3. If you suspect fire in your home or apartment, don't hurriedly open the door. Check first to see if the door is hot. If it is, stay in your room. Get someone to call the fire department. Keep the door closed and get fresh air at the window till help arrives.

DANGER IN CARBON MONOXIDE

Is your life—and the life of loved ones—being endangered by carbon monoxide from your car's exhaust system?

Possibly, says the National Safety Council, which cites these facts on deaths from carbon monoxide—the so-called creeping killer:

1. Each year, more than 300 persons (not counting persons killed in moving motor vehicles) are victims of the poisonous gas. This number includes motorists who warm up their cars with the garage doors closed, auto mechanics who repair cars in closed garages and people who sit in parked cars and leave the motor on to keep the heater or air conditioner operating.

2. Somewhat less than 50 persons a year, as revealed by medical examiners' reports or autopsies, are victims of carbon monoxide while their car or truck is traveling down the highway.

Though the statistics may show relatively few lives lost in moving motor vehicles, most safety men say the total number of deaths isn't clearly known.

"We suspect," said a state police official, "that many one-car accidents, rear-end collisions and accidents in which the driver says he fell asleep are caused by carbon monoxide."

Carbon monoxide, the silent killer, causes more deaths than any other poison. It is colorless, tasteless, nonirritating and almost odorless. It can kill within minutes, depending on the concentration breathed into the lungs. Running the motor of a car for five minutes in a garage with the doors shut may mean death.

The symptoms of carbon monoxide poisoning, according to the Council: tightness across the forehead, followed or accompanied by throbbing in the temples, headache, weariness, weakness, dizziness, nausea, loss of muscular control and increased pulse and respiration.

If you're driving at night and the darkness seems blacker than usual, the glare of oncoming lights brighter than usual, carbon monoxide might well be the cause.

If the concentration of carbon monoxide in the air is great enough, the victim may fall unconscious without any warning signals.

How can you prevent carbon monoxide poisoning?

"Fresh air," the Council said, "is the one sure way."

Checking your muffler or exhaust pipe will enable you to detect danger

before it's too late. Other suggestions from the National Safety Council:

1. Before starting your car engine, open the garage doors wide.

2. Never drive with all the windows closed.

3. If you're sleepy on the road, the cause can be carbon monoxide. Stop at once, get out of the car and breathe fresh air. Then drive with the windows open.

"In addition," the Council advised, "don't follow other cars too closely. Their exhaust contains carbon monoxide fumes which may enter your car."

MENTAL HEALTH GRANTS

The Southern Regional Education Board has been awarded a two-year grant for $76,310 from the National Institute of Mental Health for an in-service training program for mental health workers. The grant became effective January 1, 1960.

Individual grants up to $500 will be made available to any employee of a mental health out-patient clinic and to staff members of state commissions of mental health or divisions of mental health in any of the 15 SREB states supporting the mental health program.

Grants are designed to cover the cost of transportation, and room and board for a visit of no longer than four weeks.

Purpose of the grants is to give personnel from one clinic a chance to visit another to observe new or different methods of operation which might be applied in the applicant's own clinic or agency.

The grant is similar to one received by the SREB in 1958 to be used by any person working on the staff of a mental hospital or in the psychiatric department of a general hospital. Some 219 professional people have participated in inservice training on these grants to date.

Applications for the new grants will be accepted continuously until December 1, 1961. There is no deadline for applications, since they will be acted upon as they are received during the year.

Dr. William P. Hurder is associate director of mental health with SREB.

NEW WAY OF SCREENING BLOOD DONORS REPORTED

A new method for reducing the incidence of hepatitis resulting from blood transfusions was reported recently.

A "more useful" method of detecting carriers of the liver disease among blood donors was described in the Journal of the American Medical Association.

The selection of uninfected donors by blood banks is a difficult problem, one reason being that a person may carry the disease-causing virus although he has no previous history of hepatitis and shows none of its symptoms.

The prevalence of hepatitis carriers among the general population is believed to range from one-half of one per cent to six per cent.

An estimated five million blood transfusions are given in the United States each year and "15,000 to 100,000 cases" of hepatitis can be expected to result, according to the Journal article.

"These patients are, as a rule, out of work for an average of six weeks and one to five per cent will die," it said.

In a study conducted at the Medical Service and Blood Bank of the Memorial Center and the Sloan-Kettering Institute for Cancer Research, New York City, doctors used a screening test based on increased activity of certain chemical compounds (known as SGO-T) in the donors. This activity appeared to be evidence of impending hepatitis.

The researchers found "a significantly higher incidence of viral hepatitis" among recipients of blood with abnormal SGO-T activity than those who received blood with a normal SGO-T level.

They concluded that this test was "a more useful method for detecting silent carriers of hepatitis virus than other tests of liver function previously evaluated . . ."

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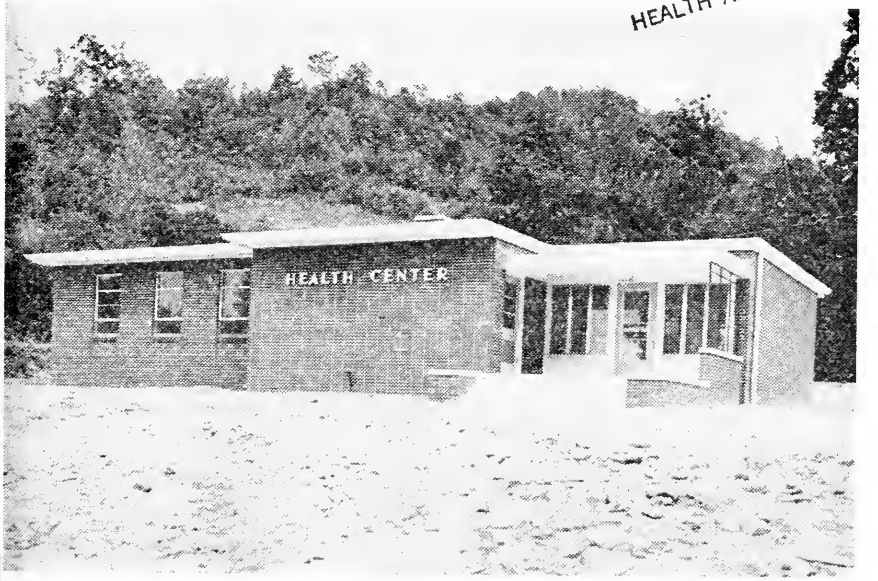

YANCEY COUNTY HEALTH CENTER
BURNSVILLE, NORTH CAROLINA

CONTENTS

What You Should Know About Septic Tanks

By Billy C. Blakeney, Sanitary Engineer
Sanitary Engineering Division
North Carolina State Board of Health

The growing trend toward suburban living has created a major problem to those state and county officials charged with protecting the health of the public through adequate and safe water supply and sewage disposal. To offer a home owner the conveniences of water-carried sewage and running water for other household uses without having access to municipal services, private wells and septic tanks are used. These systems, if planned and located properly and if soil conditions are satisfactory, can be expected to offer safe and adequate service for an extended period of time. At best, however, each can be considered only as a temporary means, and municipal or community-type water and sewerage faclities should be continuously worked for.

What are septic tanks and what is their purpose? This question is unanswered or not properly understood in the minds of many prospective home owners today. The septic tank and its associated parts utilize the absorptive ability of the soil to dispose of sewage and other domestc wastes. Through bacterial action, the multiplicity of organic materials contained in these wastes is broken down to a high degree into soluble products within the septic tank proper. The liquid effluent is, in turn, distributed over a specified

area of subsurface disposal field. If soil conditions are satisfactory, this liquid effluent will be absorbed into the soil and purification accomplished by filtration through the soil. When soil conditions are not satisfactory for absorbing this effluent, insanitary conditions occur by the liquid matter's being repelled to the surface of the ground, creating puddles of water infected with bacteria. These are the cases which create hazards and cause the most concern to public health workers. It must be remembered that the water supply for these fringe area homes is being taken from the same general area into which domestic wastes are being disposed. For this reason, it is of utmost importance that all water supply and sewerage systems for individual homes be properly installed and checked by health officials prior to being put to use.

Many suburban areas around North Carolina cities are experiencing considerable difficulty with improperly operating septic tank systems. This condition is being brought about by several factors, namely:

1. Certain areas are becoming completely saturated due to excessive numbers of septic tanks being installed in limited spaces.
2. Systems are being installed without approval of health authorities.
3. Homes are being built in areas where soil conditions are known to be unsatisfactory for septic tank installation.
4. Increased water consumption due to the increasing number of appliances is being used without adequate increase to waste disposal installations.

To lessen the dangers of this potential health hazard, it is recommended that all prospective home builders or buyers contact their local health agencies prior to purchasing a lot or house. In this way, the possibility of obtaining satisfactory service from individual water supply and sewerage facilities can be determined prior to making an investment. Many houses already constructed have unsuitable facilities. Health agencies will be able to give valuable information regarding these matters and possibly save the prospective buyer unnecessary expense and future trouble.

Your health and that of your neighbors can be endangered by an improperly operating septic tank or an improperly protected water supply. Use the services available through your public health agencies to assist you in these matters. Don't be completely satisfied with individual type systems. Look forward to and continually work for municipal or community facilities.

ANNOUNCEMENT

Applications for the scholarship being offered by the North Carolina Public Health Association are now being accepted. Particularly those people who, because of age or length of experience in public health, are not eligible for the federal traineeships will be interested in this scholarship. There is no age or experience limit for the scholarship the North Carolina Public Health Association is offering. If a person is eligible for admission to the School of Public Health, University of North Carolina, he is eligible to apply for the scholarship. The scholarship will pay in-state tuition and fees for one academic year.

Applications must be made on prescribed forms which may be obtained from Prof. Gilbert L. Kelso, School of Public Health, University of North Carolina, Chapel Hill, North Carolina. The application must be returned to Prof. Kelso by May 15, 1960.

Notes And Comment

MOST HEADACHES DON'T ORIGINATE IN THE HEAD

If you get a headache, the cause probably isn't in your head.

About 95 per cent of headaches result from conditions elsewhere in the body, according to an article in Today's Health, published by the Ameri-

can Medical Association.

"Such a simple thing as poor ventilation in a room, which results in an imbalance in the air you breathe, may cause a headache," said Dr. Adrian M. Ostfeld, University of Illinois College of Medicine, Chicago, in an interview with author Alfred Balk.

"Again, if you run a fever for any reason, the system is in an abnormal state and headache may result. If you skip a meal, your head may ache. If you concentrate on one task too long—whether it's reading or TV or driving a car—your muscles become strained, they overcontract, and then they cannot get enough blood. The result: headache.

". . . in the end, it [the headache] probably is the result of a release of a 'pain substance' from nerve ends in the scalp, at the same time that arteries in the head have become dilated due to one cause or another."

The most common type of headache, he said, results from concentration on, or preoccupation with, something for too long a time.

It's also the easiest to cure, he added, usually disappearing if one changes position, relaxes and takes an aspirin.

"Oddly enough, acteylsalicylate (aspirin) is an old standby, but we still aren't sure exactly what it does do," Dr. Ostfeld said.

Present medications have their place, he said, but they all have shortcomings. The ultimate drug will act on the pain substance and thus control the headache safely, he said.

This depends on advances in tissue biochemistry which may take several years, he pointed out.

"One problem is that you can't give headaches to laboratory animals; this research has to be done in man."

IPRONIAZID HELPS ALCOHOLICS; CAUSES NO SIDE EFFECTS

The successful treatment of alcoholic depression with iproniazid phosphate (Marsilid), a drug with a tendency to irritate the liver, was reported recently in the Journal of the American Medical Association.

Dr. Julius C. Travis of the Adult Guidance Center, San Francisco Department of Public Health, reported on the use of the drug in 20 alcoholics.

Because of its effect on the liver, Dr. Travis said, "the drug was, and apparently still is, considered dangerous for the alcoholic patient, who already may be a victim of liver disease."

However, he prescribed the drug in cases where the patient was depressed to the state of possible suicide and had no history or current evidence of liver disease.

Among the 20, all outpatients, six showed excellent results, six good results, four fair results, and four poor results.

No side effects were observed. There were no cases of hepatitis or liver involvement. There were no suicides and no patients were sent to a hospital.

Dr. Travis concluded that iproniazid is "beneficial" to severely depressed alcoholics when the patient appears to be free from past or present liver trouble; the drug is given with pyridoxine to control adverse side effects; the risk of drug complications is much less than that of death or extensive hospitalization, and the patient is not drinking.

"It also seems to have helped these patients to refrain from continued use of alcohol as a cure for their depression," he said. "It is probable that the occurrence of suicide or hospitalization (and also just plain misery) has been reduced by the use of iproniazid. . . ."

KNOWING CAUSES HELPS PREVENT FOOD POISONING

The causes of food poisoning—a particular hazard in warm weather—are outlined in the Journal of the American Medical Association.

An understanding of the causes is helpful in preventing the illness.

The main cause of food poisoning is bacteria which contaminate the food by multiplying or forming a poisonous substance. When eaten, the food produces acute illness of short duration.

Food poisoning caused by staphylococcic bacteria is "the most common type encountered in the United States," according to the Journal article.

When the bacteria are present, only time and the correct temperature are needed to cause an outbreak. At a warm temperature food can become poisoned in five to seven hours in some cases. The foods usually involved in this type of poisoning are ham, cream-filled bakery goods, cheddar cheese, dry skim milk, poultry and potato salad.

The symptoms of staphylococcic food poisoning—nausea, vomiting, diarrhea, acute prostration, and abdominal cramps—appear within a few hours after the food is consumed.

Another type of bacteria that can cause food poisoning is salmonella.

"Salmonellae are abundant in nature and are found most commonly in the intestines of poultry and swine," the article says.

"They are present on the shell of eggs, and, when eggs are broken commercially, they find their way into frozen whole eggs, yolks, whites and in dried egg products."

The foods usually involved in salmonella poisoning are inadequately cooked egg products, poultry or other foods. The symptoms it produces are abdominal pain, diarrhea, chills, fever, frequent vomiting and prostration.

Several other types of food poisoning can be caused by starch foods inadequately refrigerated and by poultry and meat products cooked and left unrefrigerated at a warm temperature for several hours.

A rare and often fatal type of food poisoning is botulism.

"In the United States the majority of outbreaks of botulism are related to the consumption of inadequately processed home-canned vegetables of low-acid content such as string beans, beets, and other vegetables," according to the Journal report.

The symptoms are difficulty in swallowing, double vision, difficulty in speech and difficulty in respiration, followed by death from paralysis of the muscles of respiration.

The article was prepared by Dr. G. M. Dack, professor of microbiology and director of the Food Research Institute at the University of Chicago, as a report to the A.M.A. Council on Drugs.

PHYSICIANS MAIL JOURNALS TO FIGHT COLD WAR

Dr. Charles B. Daugherty of Jeannette, Pa., is doing his bit to fight the cold war.

Under his direction, American physicians have begun sending their old medical journals to physicians in foreign lands instead of letting them go to waste.

The semi-retired otolaryngologist feels this will help deter the spread of communism.

"Doctors in some of these situations are the only literate persons in their communities and have great influence," he said. "If we can get an individual doctor to say 'America is good,' the whole community will say 'America is good.' "

Physicians in many parts of the world lack current medical literature, and since English has largely replaced German as the medical language of the world, American physicians with their vast amount of such literature are in a position to make a contribution to foreign medicine for the cost of re-mailing old journals, according to an article in the Medicine at Work section of the Journal of the American Medical Association.

After nine months, 65 American physicians are mailing journals to 83 of their counterparts overseas. Dr. Daugherty has access to the addresses of 250,000 foreign physicians and hopes to expand the program, called "Colleagues Everywhere." At present, he personally is handling requests for the addresses of foreign physicians.

ULTRAVIOLET RADIATION CUTS OPERATING ROOM INFECTIONS

Ultraviolet radiation has been recommended as an effective means of preventing infection from antibiotic-resistant bacteria in operating rooms.

A method that has kept operating room infections to a bare minimum at Duke Hospital, in Durham, was described by Dr. Deryl Hart in the Journal of the American Medical Association.

"It has always been our opinion that keeping pathogenic bacteria out of a clean wound is preferable to trying to control their growth or to kill them after they enter. . . ," Dr. Hart wrote.

"With the present widespread distribution of antibiotic-resistant staphylococci, prevention of such contamination is now all the more important."

"No area of the body is inaccessible today to the trained surgeon," according to an accompanying Journal editorial. "However, with these larger, more traumatizing, and longer procedures, 'unexplained infections' have become progressively more common and more critical."

Ultraviolet radiation, which kills bacteria in the air, has been in use at Duke Hospital for more than 20 years in as many as 15 operating rooms.

Dr. Hart said the results obtained "have been nothing short of miraculous.

"In the Duke Hospital so-called unexplained infections in clean operative wounds not only have been explained but have been eliminated, to a great extent, by a variety of measures aimed at limiting the contamination of the air with pathogenic bacteria, and by the use of ultraviolet radiation to kill the remaining bacteria that inevitably get into the air and, by sedimentation, onto exposed surfaces.

"We consider the air route of spread to be the greatest factor . . . and therefore to be responsibe for most of the so-called unexplained infections in clean operative wounds today."

Dr. Hart said destroying bacteria floating in the air obviously offers protection regardless of the source of the bacteria, i.e., whether it originates in the respiratory tract of operating room personnel, contamination of the room, clothing or blankets or air from other parts of the hospital.

It was found that air contamination rose rapidly in a bacteria-free operating room when it was occupied. Studies showed that staphylococci were the main contaminants and were directly related to the number of persons in the room, how long they remained and the time of the year, the worst season being winter.

Dr. Hart said it also was found that the average mask, even when two are worn, is inadequate to control air contamination, and sterilization of the air within the air ducts does not reduce the bacteria content of the air to a safe level.

Protection from the ultraviolet rays can be afforded patient and personnel without any inconvenience, he pointed out.

The eyes of the personnel are guarded from direct radiation by an eye shade and from reflected radiation by glasses. The eyes of the patient are closed. For frequent and long periods of exposure, he said, the skin is covered or shaded.

On the basis of Duke Hospital's long experience, Dr. Hart recommended that "ultraviolet radiation be used continuously as an addition to aseptic operating room technique."

NINE PHYSICIANS ENDORSE NEW RESUSCITATION TECHNIQUE

An "improved" and "simplified" method of oral resuscitation was recommended recently by nine physicians in the Journal of the American Medical Association.

Briefly, the new technique calls for the rescuer to tilt back the head of the victim as far as possible and inflate the lungs through the victim's nose or mouth.

The "head-tilt method" was studied in seven research centers in six cities in this country and abroad—Buffalo, N. Y.; New York City; Los Angeles; Copenhagen, Denmark; Karlskrona, Sweden, and Zurich, Switzerland.

"After one year of these coordinated studies in over 1,000 anesthetized human beings, results of use of the head-tilt oral method, with inflation through the victim's nose, have been uniformly satisfactory except in the group of newborn infants, which involves special problems," the article said.

The physicians suggested that the revised technique replace the old mouth-to-mouth method. The head-tilt method works better than any oth-

er field method of emergency aritificial respiration and should be tried first in all cases, they said.

Nasal inflation is preferred, they said, since it prevents air from getting into the victim's stomach. It also is best suited for the victim whose jaws are too tightly clenched to be opened.

By tilting back the victim's head, his air passages are opened, they pointed out.

Another advantage of the new method is that it prevents air leakage between the rescuer and victim, according to the nine physicians.

Using the old method, the rescuer held the victim's mouth open with his thumb and this allowed some air to escape. Under the new method, the rescuer holds the victim's mouth closed during mouth-to-nose breathing and presses his cheek against the victim's nostrils, if necessary, to prevent leakage during mouth-to-mouth breathing.

The revised technique also is more easily taught and remembered, the article said.

"Experience has shown that it can be taught and practiced in a few minutes, with minimal discussion of the anatomy of the air passages."

At the same time, the physicians said they felt oral airways for resuscitation, such as tubes and masks, which have been placed on the market, should not be used by untrained laymen. They said such devices have been promoted and sold without official medical approval or the approval of organizations traditionally responsible for endorsement of methods of artificial respiration.

Instructions for the head-tilt method are:

—Lift the neck of the victim.

—Tilt the head as far back as possible by holding the crown of the head with one hand. Sufficient tilting usually opens the victim's mouth.

—Pull the chin upward.

—Inflate the lungs through the nose or mouth or, in an infant, through the nose and mouth.

—Remove your mouth to let the victim exhale passively.

In babies and children, care must be taken to pull the chin upward, without exerting pressure on soft tissues, which could encroach on the air passages.

If desired, the victim's shoulder may rest continuously on the rescuer's knee during resuscitation.

Small victims, particularly after submersion in water or obstruction by a foreign body in the upper airway, should be inverted and, if necessary, sharp blows applied between the shoulder blades to help dislodge the offending material.

NON-POLIO VIRUSES CONTRIBUTED TO DETROIT POLIO EPIDEMIC

Non-polio viruses played an important role in causing the 1958 Detroit polio epidemic, three Michigan researchers said recently.

Gordon C. Brown, Sc.D., Ann Arbor; Willard R. Lenz, M.D., Detroit, and George H. Agate, M.D., Lansing, made a comprehensive report on the epidemic in the Journal of the American Medical Association, based on laboratory tests on 1,060 of the 1,200 cases.

The study involved "probably the greatest percentage of victims of a large epidemic of poliomyelitis ever to be subjected to laboratory investigation," the researchers said.

They found that two viruses, other than the polio virus, caused more cases of nonparalytic disease than the polio virus. They were the ECHO and Coxsackie viruses, of which there are many types. This pointed up the need for a new vaccine.

"Since these viruses can apparently cause a paralytic type of disease in an occasional person, consideration should be given to the development of preventive vaccines for certain of these agents," they said. "This is especially important for pregnant women, in view of the increasing recognition of neonatal [newborn] deaths caused by Coxsackie B viruses . . . ."

The symptoms associated with ECHO and Coxsackie virus infections were virtually indistinguishable from those of nonparalytic polio, they reported.

"The occurrence of ECHO and Coxsackie virus infections was not influenced by poliomyelitis vaccination," they said.

However, the study "clearly shows that most of the virus-confirmed cases of poliomyelitis had occurred in persons who had received no poliomyelitis vaccine.

"This was apparent not only for the paralytic cases but also for those classified as nonparalytic."

On the other hand, examinations for muscle weakness 60 days after the onset of illness indicated there was no association between vaccination and findings of improved muscle condition.

The researchers further stated an analysis of patients, both paralytic and nonparalytic, from whom no virus could be isolated strongly suggested that the polio virus was not the cause of illness "in a large number" of them.

The study also showed that virus-confirmed cases of polio occurred predominantly in younger persons while Coxsackie and ECHO virus infections were much more evenly distributed by age.

Dr. Brown is associated with the department of epidemiology and virus laboratory, School of Public Health, University of Michigan. Dr. Lenz is with the communicable disease division, Herman Kiefer Hospital, Department of Health. Dr. Agate is associated with the acute communicable disease section, Michigan Department of Health.

A.M.A. EMBARKS ON MAJOR STUDY OF MEDICAL CARE COSTS

A "Commission on the Cost of Medical Care," to delve into every phase of medicine where cost or spending is involved, has been announced by the American Medical Association. An initial grant of $100,000 was appropriated to launch the study.

"This study-project is being undertaken," said Dr. Louis M. Orr, Orlando, Fla., president of the A.M.A., "because the American public is spending increasing amounts of money for all types of medical care. These expenditures involve the peoples' lives, health and pocketbooks. We would like to find where economies may be achieved in the best interests of the patient. The commission will analyze the cost picture from every angle and try to come up with some sound advice and suggestions."

The commission, whose members will be announced shortly, will serve as a "little Hoover Commission" to study all medical care costs, including doctors' fees, hospital charges, nursing cost, drug expenditures and health insurance premiums.

Dr. Orr said that American medicine is "tackling the cost problem in order to help people better meet their obligations when illness strikes, and to help clarify the confusion that exists relative to such cost."

The American Medical Association, Dr. Orr said, is "well aware that more physician-patient relationships have been strained by a misunderstanding about fees than perhaps any other disagreement. Is such misunderstanding due to lack of frank discussion between doctor and patient, or is there some other reason? A patient has every right to know why he needs treatment or surgery, what it will consist of, and what it will cost—particularly where major services are rendered."

It is hoped, Dr. Orr added, that the study will also provide some sound advice for the consumer on how to get the most benefit from his health dollar.

In conducting this study, the A.M.A. commission will consult economists, health insurers, prepayment plans, hospital representatives, a cross section of patients and others whose knowledge and opinions will be helpful.

Members of the commission will be announced shortly, and it is expected to be functioning this spring.

ULCER NOT RARE IN YOUTH; OFTEN UNNOTICED FOR YEARS

Junior could get a peptic stomach ulcer before his "old man." And if his father does develop the ailment, it may have started in his youth.

These are the conclusions of three Chicago physicians reported in the American Medical Association Journal of Diseases of Children.

"Despite its relative infrequency, peptic ulcer in children should not be considered rare," they said.

"The true incidence of peptic ulcer in children cannot be evaluated on the basis of the recorded cases, since these undoubtedly represent a small fraction of the total number of children with the disease. In many cases, symptoms are entirely lacking and the condition is identified only at operation or autopsy."

Drs. Alberto Ramirez Ramos, Joseph B. Kirsner, and Walter L. Palmer of the University of Chicago department of medicine cited studies showing that out of 1,000 adult patients with duodenal ulcer, 26 of them had symptoms and out of 1,000 with gastric ulcer, traceable as far back as 4 years of age, 16 had symptoms that dated from childhood.

From their own experience with 32 cases of peptic ulcer in children up to age 15, observed from 1936 to 1958, they concluded that:

—Chronic peptic ulcer in children is more frequent in males than in females at all ages.

—Symptoms of peptic ulcer are vague in children until the age of puberty when they begin to resemble those of adults.

—Duodenal ulcers exceed gastric ulcers.

—Chronic peptic ulcer in children is more frequent than acute ulceration and often remains unrecognized for long periods.

—Medical management with avoidance of gastrointestinal irritants in food and medication, frequent antacids and sedation, is effective in the majority of chidren with peptic ulcer.

—As in the adult, surgical management may be necessary in childhood peptic ulcer complicated by hemorrhage or perforation.

The cause of peptic ulcer in children remains as obscure as its occurrence in adults, the researchers noted.

However, in the four cases of acute peptic ulceration among the 32 patients, cerebral damage and certain drugs may have been implicated as causative factors, they said.

Two patients, aged 6 and 7 developed acute peptic ulceration following a month's treatment with corticotropin, salicylates and aspirin for rheumatic fever. But it could not be determined whether the drugs produced the ulcers or irritated a susceptibility to ulcer, or whether rheumatic fever predisposed to peptic ulceration.

HOSPITALIZATION OF CHILD EASIER WHEN MOTHER GOES ALONG

The emotional shock that may occur when a child is hospitalized can be overcome when the mother stays with him, according to a New Haven, Conn., pediatrician.

Writing in the Journal of Diseases of Children published by the American Medical Association, Dr. Albert J. Solnit of the Child Study Center and department of pediatrics, Yale University, said "hospitalization of the child with the mother has served to overcome both physical and psychological difficulties.

"For young children and their parents, the hospital environment has represented a psychological hazard. The children are threatened by separation from their parents, fears of abandonment, and painful, frightening procedures in the hands of strangers.

"Since the mother may have the best access to the distorted fears of the young child, she can most effectively reassure her child . . . ."

Therefore, Dr. Solnit said, the mother is not replaced by the nursing or medical staff. On the contrary, he said, the physician and nurse help the mother take care of her child.

THINNING HAIR IN YOUNG WOMAN DOES NOT LEAD TO BALDNESS

Young women whose hair suddenly begins to fall out need have no fear they will be left looking like actor Yul Brynner.

Drs. William B. Guy and Walter F.

Edmundson of Pittsburgh, writing in Archives of Dermatology, published by the American Medical Association, said the condition is most likely temporary and can be treated successfully.

They said diffuse cyclic hair loss in women is "rather common" and is entirely different from permanent hair thinning that occasionally occurs in women in middle or late life.

"It occurs in transitory episodes, lasting for several weeks usually," they said. "The typical patient is a vigorous otherwise healthy woman.

"Needless to say, the emotional overtones in this situation are great. Some men take the state of their hair seriously. Practically all women do.

"It is the source of much perplexity because there is no apparent cause.

"It is probably a physiologic phenomenon. In these people a significant per cent of hairs enter the resting phase simultaneously. When they fall out in a short period of time, the situation causes alarm."

The authors said the hair that falls out usually is replaced by new hair growth. They said they had been able to arrest the process by administering corticosteroid hormones.

A.M.A. INITIATES ACTION ON MEDICAL SCHOLARSHIPS

The American Medical Association initiated action recently on the establishment of a scholarship program for medical students with the appointment of a special study committee.

William F. Norwood, Ph.D., chairman of the division of legal and cultural medicine, College of Medical Evangelists, Los Angeles, was named staff director of the committee.

Dr. Norwood has been associated with the College of Medical Evangelists School of Medicine since 1933. From 1950 to 1951 he took a leave of absence to serve as a staff associate in a survey of medical education sponsored by the A.M.A. and the Association of American Medical Colleges.

The House of Delegates, policy-making body of the A.M.A., in December adopted a resolution that a scholarship fund should be established to aid deserving students to enter the field of medicine and that such a fund be backed by the A.M.A. as a primary sponsor. It acted on the recommendation of the A.M.A. Council on Medical Education and Hospitals, which reported it had found sufficient evidence of a real need for a scholarship program.

"Most educators and college counseling offices believe that a significant number of well-qualified men and women are being deterred from entering medicine as a career because of financial considerations," Walter S. Wiggins, M.D., Chicago, secretary of the council, said, adding: "Superior students are being attracted into more lucrative and easily attained careeers.

"The tasks assigned to this committee are of signal importance because it is urgent for medicine to develop and implement a program which will provide adequately for the future medical needs of our nation."

Dr. Wiggins said the committee also will seek ways to solve the over-all problem of increasing medical education facilities to keep pace with the nation's ever-expanding population and the growing demand for medical service.

Specifically, the committee was empowered to:

—Present a scholarship program, its development, administration, and the role of the American Medical Association in fulfilling it.

—Ascertain the maximum to which medical schools could expand their student bodies while maintaining the quality of medical education.

—Ascertain what universities can support new medical schools with qualified students and sufficient clinical material for teaching—either on a two-year or a full four-year basis.

—Investigate the securing of competent medical faculties.

—Investigate financing of expansion and establishment of medical schools.

—Investigate financing of medical education as to the most economical methods of obtaining high quality medical training.

—Develop methods of getting well-

qualified students to undertake the study of medicine.

—Investigate the possibility of relaxing rigid geographic restrictons on the admission of students to medical schools.

Dr. L. S. McKittrick, Brookline, Mass., who is chairman of the council, will serve as chairman of the committee. Other council members on the committee are Drs. W. Clarke Wescoe, dean of the University of Kansas School of Medicine, and John Z. Bowers, dean of the University of Wisconsin Medical School.

Three members of the House of Delegates named to the group are Drs. Willard A. Wright, Williston, N. D.; Charles G. Hayden, Boston, Mass., and Charles L. Hudson, Cleveland, Ohio.

Drs. James Z. Appel, Lancaster, Pa.; Julian P. Price, Florence, S. C., and Hugh H. Hussey, Jr., dean of the Georgetown University School of Medicine, Washington, D. C., all members of the Board of Trustees, also were named to the committee along with two other medical educators, Drs. John Mitchell, dean of the University of Pennsylvania School of Medicine, Philadelphia, and William R. Willard, dean of the University of Kentucky School of Medicine, Lexington.

COLLEGIANS' MENTAL PROBLEMS ARE WIDELY UNDERRATED

The seriousness of mental disturbances among the nation's college students is widely underrated, a psychiatrist said recently.

The myth of the "happy college student" based on the superficial impression that everyone on campus is having a wonderful time may be partly responsible for this misconception, Dr. Melvin L. Selzer of the University of Michigan, Ann Arbor, wrote in the American Medical Association Archives of Psychiatry.

"The over-all impression created has been that the psychic difficulties experienced by college students are not as serious as those that beset the rest of the population," he said. "In general one can readily be left with the impression that college students' emotional disorders are largely situational and transient, with a substantial number suffering no worse than mild adjustment reactions."

However, this impression is not borne out by data accumulated at the Mental Hygiene Clinic of the University's health service, he said.

Roughly 8 per cent of the total student body visits the clinic annually. A survey of the students seen by three psychiatrists at the clinic from July 1, 1957, to June 30, 1958, revealed a higher incidence of serious mental disorders than previous impressions issuing from college health services.

"Of 506 students intervied . . . 35.4 per cent were psychneurotic, 24.5 per cent had personality disorders, and 21.7 per cent were schizophrenes. Adjustment reactions comprised only 8.3 per cent of the disorders noted. Thus, 81.6 per cent of the patient group fell into the three major psychodiagnostic categories.

While the largest number of students interviewed were diagnosed psychoneurotic, Dr. Selzer said, "many reports practically deny the presence of psychoneuroses among college students."

Previous reports have placed the incidence of psychoses at 2.4 per cent to 8 per cent, he said, compared with 21.7 per cent for schizophrenics, the only type of psychoses noted in the Michigan study.

The incidence of personality disorders also is "much higher than would be expected on the basis of previous material," he said.

The 8.3 per cent whose trouble was diagnosed as adjustment reactions compares with 6 per cent recenty reported at an adult community psychiatric clinic, Dr. Selzer pointed out.

"There is reason to believe that patients seen by a college health service psychiatrist are diagnostically comparable to patients encountered in any outpatient psychiatric clinic accessible to the general public," he said.

Dr. Selzer said his survey indicates that students at college mental hygiene clinics are often underdiagnosed.

"This can be attributed to a number

of possible causes," he said. "The necessity for the busy therapist to concentrate on the immediate precipitating complaint may have the effect of obscuring the presence of underlying pathology.

"Other misleading factors may be the patient's youth, intellectual ability, and academic prowess. It may be difficult to accept the idea that members of this group are emotionally ill."

Finally, he said, there is the happy college student myth, the belief that campus life is a series of parties and games attended by a carefree, irresponsible student body.

". . . popular notions do have a way of permeating the institutions affected, and college health services may be no exception," he concluded. "The 'myth' may have played some role in seducing the unwary to accept certain problems as essentially 'social,' or 'academic,' or 'family,' when in reality they represent symptoms of emotional illness."

SPECIALIST CONDEMNS RASH OF OPEN CHEST HEART MASSAGE

The increasing use of open chest heart massage has been criticized by a New York physician.

"The rash of thoracotomies [chest incisions] occurring in emergency rooms, medical wards, and even ambulances must be condemned," Dr. Vincent J. Collins of New York University-Bellevue Medical Center wrote in the Journal of the American Medical Association.

". . . thoughtless thoracotomies are being performed without due consideration of the principles [of cardiac resuscitation and massage] and in the face of inadequate assistance and equipment," he said.

Dr. Collins, a specialist in anesthesiology, stressed that adequate personnel with the proper skill and equipment, including someone with surgical skill and knowledge of the technique of heart massage, must be present.

This extraordinary measure, he said, should not be taken when heart collapse is precipitated by disease. Even in the operating room, where all skills are available and there is usually a preconceived plan of action, the incidence of successful resuscitation is "nil" in cases in which there is preexisting cardiac disease, he said.

Suggestions that laymen be taught the fundamentals of cardiac resuscitation and massage, he added, ignore the fact that the success of the technique depends upon an understanding of the restoration of the entire oxygen system.

Dr. Collins commented on cardiac resuscitation in discussing deaths during anesthesia and surgery.

He said "numerous reports of cardiac arrest in recent years leave the impression that fatalities from the conduct of anesthesia and surgery are on the increase."

However, he said, the lack of specific definition and terminology relating to operating room deaths and of uniformity in compiling statistics makes the problem difficult to assess.

A committee appointed by the A.M.A. House of Delegates currently is developing a classification of, and terminology for, hospital deaths due directly to anesthesia and/or operation.

"Nevertheless, the over-all operating room mortality can be placed at 1 in 1,000 to 1 in 2,000 operations," he said.

"If one reviews the available statistical reports one may further conclude that about one-third of the deaths may arbitrarily be attributed to anesthesia. Thus a rough incidence of anesthesia-related deaths is 1 in 3,000 to 5,000 anesthesias."

The importance of medical causes of death is increasing because of the frequency of medico-legal and professional criticism, he said.

"Such criticism is often based on the too ready assumption that every death occurring under anesthesia is caused by anesthesia or the anesthetist, in the absence of an obvious catastrophic event. . . ."

He urged that every death under anesthesia be followed by post-mortem examination as regularly as are other deaths occurring due to accidental or unknown causes or under suspicious circumstances.

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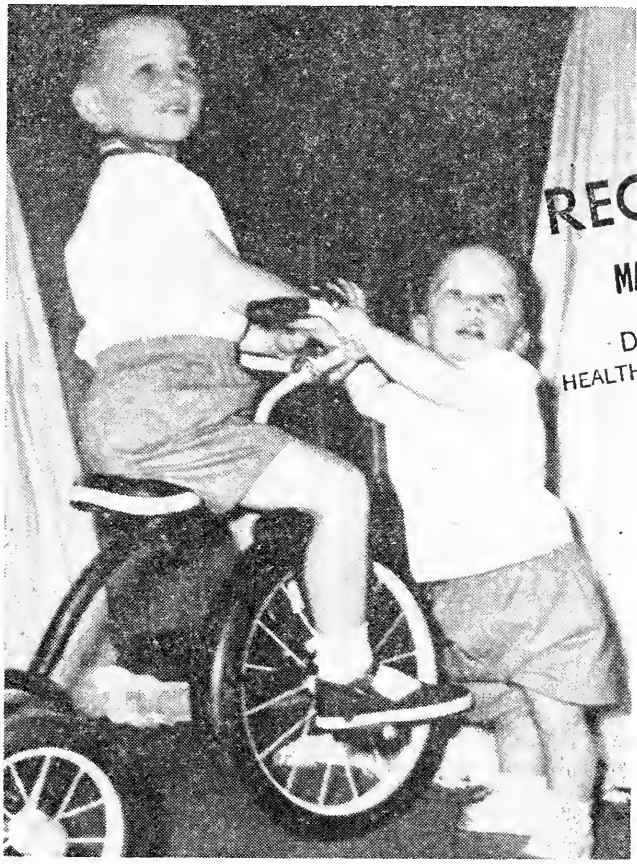

James Clyde, Jr., age 5 years, and Cecil Stroud, age 20 months, sons of Mr. and Mrs. James Clyde Harvell, Morehead City.

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DR. JOHN C. WESSELL

A Man Of Service

(Wilmington Star, March 21, 1960)

Few men in the state and nation have contributed as much in professional talent, counsel and time to the continuing challenge against tuberculosis as did the late Dr. John C. Wessell.

Within a dozen years after he was licensed to practice in North Carolina, he originated and led the movement to establish the Red Cross Tuberculosis sanatorium. He served as physician in charge from the time it opened its doors in 1912 until it was closed in 1943.

When the people of New Hanover county built a new sanatorium for the care of the tubercular ill, it was only logical that it be named in honor and recognition of Dr. Wessell.

But the sanatorium was but one of the fronts on which Dr. Wessell fought this disease. For many years he was active in the affairs of the North Carolina Tuberculosis Association and his work with the national organization was recognized through award of a bronze medallion. On the professional level, he was a charter fellow of the American College of Surgeons.

Aside from being a professional authority whose ability was widely

noted, Dr. Wessell was also an inspiring and practical leader of the laity. Every effort against tuberculosis enjoyed his advice and an interest that even declining health could not weaken.

But his interest in humanity was not limited to just one disease. He was equually concerned in behalf of good public health. To that end, he served 48 years on the Consolidated Board of Health.

The foundation for this and other public service was Dr. Wessell's warm and sincere consideration of his fellowman. He was a physician deeply interested in all people. He applied that interest in the most practical means possible. The result is that his passing will be felt with deep regret by all who realize, with profound thankfulness, the meaning of his serviceable, Christian life to Wilmington.

COOPERATION BETWEEN COUNTY MEDICAL SOCIETY AND COUNTY WELFARE BOARD PAYS DIVIDENDS IN HARNETT COUNTY

Reported by Bruce B. Blackmon, M.D.,
Buies Creek, N. C.

For several years the Harnett County Medical Society has been interested in what was happening to the county welfare rolls and the fact that apparently it was easy for non-energetic people to get on the rolls but hard for them to ever get off.

In 1957 the county medical society was instrumental in getting a physician appointed to the county welfare board. It was soon obvious that our previous feelings were correct.

With the permission of Dr. Ellen Winston, Commissioner of the State Board of Public Welfare, our county medical society began to work with the local Welfare Department to see what could be done about the situation. Two approaches were used:

First: a review of old medical records

Second: a physical examination by a team of three physicians for all new applicants who are trying to get on the welfare rolls for medical reasons.

Review of Old Medical Records:

A committee of three physicians with the help of the county superintendent of welfare began a review of all of the medical records on file. (It should be emphasized here that the medical records were all that was made available to the committee.) To date 2/3 of all of the medical records on file in the Harnett County Welfare office have been reviewed. Of this group about 26% appeared to be questionable as being totally and permanently disabled. For instance, one client had been drawing a check since 1950 because of cancer. There were only three possible medical explanations for this case: first, there had been no cancer or second, the cancer had been cured or third, the patient was dead. The answer turned out to be the second choice; this patient with cancer had been detected early, treated, and cured at North Carolina Memorial Hospital at Chapel Hill, and yet for many years thereafter a monthly check continued to be sent to this "cancer victim".

After this 26% of questionable files were isolated, these recipients were brought in for a physical examination by a team of three physicians. Of this group, one half or 13% of the original files checked were found **not** to be disabled to the extent to be eligible to receive a welfare check.

Physical Examination By A Team Of Three Physicians For All New Applicants:

An alphabetically rotating committee of three physicians from the Harnett County Medical Society was organized to examine each new applicant who was applying for aid for medical reasons. This committee was set up so

that one physician was added to the committee each month and one dropped from the committee each month. In this way, all members of the medical society serve for three months during each 18-month period. During the month, all persons making application to the welfare department for medical reasons are told to report to the county health department on the fourth Friday of the month at a given time. (Invalids are excluded.) At that time the team of three physicians examine each patient and then formulate a combined opinion concerning disability of the patient. All of this work is gratis.

Since this system has been adopted in Harnett County, no patient has been examined in a physician's office for welfare disability. This has amounted to a tremendous time saving for the individual physician and at the same time guarantees to each applicant that he will have the benefit of the best judgment of three physicians without charge. For the county taxypayer, it provides protection from applicants being put on the rolls because an individual physician is put under pressure or because the recipient is maliingering. At this point, much credit must be given to our local and state health department which has been most helpful in providing space, facilities, and nurses on the examination days. Dr. Roy Norton, Director of State Public Health Department, has been especially helpful in this role and says this can be done in any county in the state.

Shortly after this procedure was initiated it became evident to the physician on the welfare board that applicants who were potential malingerers were going out of the county as far as 50 miles from home to get their physical examinations done. The local welfare department helped to solve this problem and now no physical examinations are accepted from anyone other than the local review team or one of our three teaching institutions or the VA hospital. (Again invalids are excluded.) The three teaching institutions have been most helpful in weeding out suspected malingerers.

Results:

Financial: By reviewing 2/3 of the medical files and then the recipients from that list that looked doubtful, we were instrumental in terminating 20 cases. The last 1/3 of the file was not reviewed at one time because by the time we had gotten around to reviewing these charts, it was time for the recipient to have his periodic re-examination which is required by the welfare regulations. By this time, we had our rotating physicians' team organized and working so that each of these was seen in due course of time and screened as they came before the review team.

Although we have no exact figures, we can assume and are fairly certain that the same ratio of recipients was dropped from the rolls in this later 1/3 as in the previous 2/3. With that assumption and knowing that 20 were removed from the first 2/3 of the roll, then we can say that 30 recipients have been removed from the rolls by this screening. The average check to recipients in Harnett County who are receiving under the aid of permanently and totally disabled category is $46.00. This multiplied by 30 equals $1,380.00 saved for the taxpayers monthly. This amounts to $16,560.00 annually.

This does not take into consideration the number that apply but when they learn that they will have to appear before the local medical review team, withdraw their application or fail to show up for their appointments with the local medical review team.

Time: By having a scheduled time each month for these examinations every applicant can be assured of an adequate examination with plenty of time devoted to him by three physicians. This costs the patient nothing, whereas before in the private physician's office, the patient paid the individual doctor for the examination. He does not have to compete with sick patients and labor cases for a few minutes of his family physician's time to "get a form filled out".

From the physician's point of view,

he can know several months in advance when his tour of duty comes up for 1/2 day per month for three consecutive months to serve on the medical review team. During the meantime, he does not have to stop seeing sick patients in the middle of a busy day just to "fill out some more forms".

Discussion

We have found in Harnett County that since a member of the Harnett County Medical Society went on the local welfare board, a mutual feeling has developed between the two which had never existed before. The physicians have become more tolerant toward necessary forms and paper work, the welfare department has become more keenly aware of the presence of malingering and together, we are saving the taxpayers $16,560.00 annually in a rural county. At the same time we are making better citizens of the malingerers by allowing them to again become self-supporting instead of continuing to be parasites on society. In the case of conditions which have been cured, we are leaving the patients with a feeling of great relief to know that they are no longer disabled but are able to resume their normal lives and occupations.

Summary:

By virtue of the fact of having a local physician on the local welfare board, the physicians of Harnett County have organized a rotating medical review team to do all of the physical examinations required by the local welfare department for applicants requesting help for medical reasons. Only medical forms filled out by the review team are accepted by the Welfare Department. The review team sees applicants every fourth Friday at the local health department. Consequently no welfare forms are filled out in the physician's office. Malingering is decreased, the examinations are free, and more thorough, and the taxpayers are being saved $16,560.00 annually in Harnett County.

Second Annual Pre-Convention School Health Meeting

Miami Beach, Florida will be the site of the second annual Pre-Convention School Health Meeting, jointly sponsored by the American Medical Association and the American School Health Association. This will be held on Sunday evening, June 12, in the Medallion Room of the Carillon Hotel immediately prior to the annual meeting of the American Medical Association.

A panel of outstanding school health people from many professions will present a symposium on various phases of school health, and there will be an opportunity for a discussion on school health problems by those attending.

All who are concerned with the health of school age children are cordially invited to attend this meeting. Those who are not physicians will be issued guest badges that will permit them to view the exhibits and to participate in some of the activities of the annual meeting of the American Medical Association.

The Present Community Mental Health Program

1. During 1959, eleven mental health clinics were operated by local health departments in the following locations: Asheville, Charlotte, Durham, Elizabeth City, Fayetteville, Greensboro-High Point, Greenville, Raleigh, Salisbury, Wilson and Winston-Salem.

These clinics treated 4300 patients in 32,000 interviews. Sixty per cent of these patients were under eighteen years of age.

2. Health departments in Gastonia, Halifax and Wilmington each employed one professional mental health worker who served as consultant to public health nurses, welfare caseworkers, school personnel, ministers and other community groups.

3. Public health nurses in seventeen counties provided nursing service for posthospitalized mental patients and their families.

4. All of the above services carried on educational programs with various community groups.

5. Funds to provide these services came from the following sources:

$145,000 was appropriated by the State legislature and allocated to local health departments.

$135,600 was received from the Federal government. $110,000 of this was allocated to local programs. The remainder was used for the activities of the State office.

$306,000 was raised in the local communities.

Needed Expansion In The Mental Health Program

The U. S. Public Health Service states that mental illness is the nation's number one health problem. By the **most conservative** estimate, there are 200,000 Norh Carolinians in need of treatment for mental illnesses. Most of these people do not require hospitalization.

We need:

1. Additional personnel in the present clinics.
2. New clinics—particularly in several unserved geographical areas.
3. Psychologists and psychiatric social workers in counties surrounding the clinics.

Present funds will permit no expansion of program. A small decrease in Federal funds is expected.

Notes And Comment

Mouth-to-Mouth Resuscitation

Recently one of the state newspapers carried the story of how a 10-year-old girl in Minnesota applied mouth-to-mouth respiration to save the life of her 2-year-old sister. This report is one among many attesting the effectiveness of the mouth-to-mouth method of resuscitation.

The U. S. Public Health Service, the U. S. Army and U. S. Air Force, the Boy Scouts of America, and the Society of Anesthesiologists have approved this method. The most important advantages of mouth-to-mouth resuscitation are listed as follows:

1. It is superior in ensuring adequacy of ventilation.
2. It is the only technique allowing the rescuer to be stationed at the patient's head to monitor the airway and its potency.
3. It requires a low expenditure of energy and thus can usually be continued for hours by most operators.
4. It is a universal method for all ages and sizes. Small and young individulas can perform satisfactorily on subjects much larger than themselves.
5. It can be performed without any equipment or adjuncts.
6. It does not require any special training. Most people can learn the technique by watching a film or demonstration. Practice sessions are helpful but not necessary.

There is an excellent film available for teaching mouth-to-mouth resuscitation. The title is "Rescue Breathing" and it is available from the State Board of Health Film Library; it is a 21 minute color film.

Although the American National Red Cross is teaching mouth-to-mouth resuscitation techniques and is doing a good job if it, local health departments can be of great assistance by promoting the method and also making the teaching flim available to interested community groups.

PERIL IN POWER MOWERS

The power lawn mower hadn't actually come into vogue in 1944, so an accident involving one was unusual enough to make news.

One of the first power mower accidents of record involved an Army private who came home late in World War II to recuperate from wounds re-

ceived in three invasions and was wounded by—a spoon!

The spoon, hurled by a power lawn mower in his front yard, penetrated the soldier's leg and had to be removed by an operation.

Since then power lawn mowers have increased in popularity. The number of mower mishaps has increased in direct proportion.

While no national figures are available on the power mower accident problem, the National Safety Council said a study in Georgia showed that:

1. One injury in seven results in some permanent disability.

2. Toes and feet are most often injured.

3. Seven out of 10 persons injured in mower mishaps come in direct contact with the mower. The other three are hurt by objects thrown by the mower.

While the first power mower mishap may have been unusual enough to be news, such accidents today are anything but out-of-the-ordinary.

In fact, almost every day newspapers carry accounts of mower accidents, among them such serious ones as these:

A Florida woman was killed by a blade that sailed 50 feet from a power mower and through a window pane before striking her.

A little girl was killed when her jugular vein was severed by a piece of metal hurled by a power mower.

Yet, according to the National Safety Council, power lawn mowers need be no more dangerous than any other gadget used around the yard.

Why all the shouting, then? For these reasons, it says:

1. Power lawn mowers are becoming increasingly popular, so exposure to what danger does exist is greater. More than 12 million mowers are in use today in the United States.

2. Everyone from Pop, the mower pusher, to Sis, the bystander, is a potential victim of a mower mishap.

3. The average power mower user probably feels the problem is not serious enough yet to warrant too much concern. Consequently, he may have a tendency to drop his guard.

As a guide to the manufacturers of power mowers, as well as to the folks who use them, the Council has prepared Data Sheet D-464—"Power Lawn Mowers." Sample suggestions:

"Power mowers should be well designed, built and balanced . . . Hazardous revolving parts should be covered with built-in guards . . . The sides should be completely enclosed, and securely mounted front and rear guards should be provided . . . The handle of the mower should be long enough so the operator cannot pull the mower back onto his feet . . . Provision should be made for the installation of a ground wire on electric-powered mowers. . ."

In addition to its data sheet suggestions, the Council has these tips for the men who'll be pushing power mowers this summer:

1. Unless you have good artificial light, mow only during daylight.

2. Don't use an electric mower when the grass is wet and slippery.

3. Never allow youngsters or pets around a mower. (And no one younger than his teens should be allowed to operate a power mower.)

4. When starting the engine, stand with your feet planted in a safe spot. Always be sure of your footing and balance—especially when mowing on an incline. On hills and banks, cut sideways, not up and down.

5. Don't refuel the mower while it's running or still hot from use. Always refuel out of doors. Don't forget, either, to store the gasoline in an approved container.

6. Shut off the mower before moving it from one level to another, or when you want to work on its underside. Never leave the mower unattended while it's running.

7. Make sure the area to be mowed is free of sticks, stones, wire or other obstacles.

8. Know how to disengage the clutch and stop the engine quickly.

"Power lawn mowers are a great time-saver—as any man of the house will tell you," the Council says. "But they brought with them new hazards

users aren't fully equipped to guard against.

"Only if manufacturers and users cooperate can power lawn mower accidents be prevented."

PRESIDENT'S HEALTH BETTER NOW THAN BEFORE TAKING OFFICE

President Eisenhower is in better physical condition now than when he took office despite his age and the three major illnesses he has suffered, Today's Health Magazine said recently.

"People who know the President are convinced that . . . he is in better shape today than when he entered the White House," Ernest L. Barcella, Washington bureau manager of United Press International, wrote in the American Medical Association publication.

Mr. Eisenhower, facing his 70th birthday in October, soon will become the oldest president in the nation's history.

His amazing recovery from a heart attack, ileitis and a small stroke is "one for the medical books—a living legend of remarkable physical comebacks, of astonishing stamina and energy reserve," Barcella said.

"By all medical odds, the President long since should have put on his slippers, retired to a rocking chair, and called it a career," he said. "Instead . . . he has undertaken a staggering load of work and travel."

The President has succeeded by virtue of discipline and determination, according to Barcella, who added:

"Discipline very likely saved his life; discipline in his health habits—diet, rest, emotions, exercise, work, temperance."

These were some of the points in Mr. Eisenhower's fitness program described in the article:

—The President, who had been a three-pack-a-day smoker, gave up cigaretts "instantly and completely" in 1949.

—He learned "to raise his boiling point a number of degrees" to control his temper.

—He adheres to a strict low-fat, low-calorie, high-protein diet, and now weighs roughly what he did as a football player at West Point.

—He restricts his drinking to diluted scotch highballs.

—He has become "the world's Exhibit A on golf's therapeutic value to a cardiac patient."

—He is an early-to-bed, early-to-rise man.

He gets into condition for trips by resting a few days beforehand.

—During his travels, he applies the old Army rule—"get sleep when and where you can."

"A number of other psychological or spiritual factors fit into the pattern of the President's well-being," Barcella said. "The jaunty spirit, the bouncy step, the robust good health he radiates are reflections of the inner man.

". . . this much is certain—no president ever enjoyed his last months in office more; none rode a greater crest of popularity and good will; none commanded more universal affection.

"In the view of some who have known him over the years, his coronary thrombosis may have been something of a blessing in disguise for the President. The judgment is that the attack taught him how to take the best care of himself—better than he ever had before; taught him how really precious health is."

MODERN MEDICAL KNOW-HOW COULD NOT HAVE SAVED LINCOLN

Could doctors have saved Abraham Lincoln's life 95 years ago with present-day medical knowledge and equipment?

The answer is no, according to an article in Today's Health, published by the American Medical Association.

"Even if Lincoln had been given the best of modern treatment, it is universally admitted that all efforts would have been in vain," Otto Eisenschiml, Litt.D., author of several Lincoln books, wrote in the A.M.A. magazine.

Eisenschiml said the fact that Lincoln survived for about 10 hours after he was shot by John Wilkes Booth in Ford's Theater, Washington, D. C., April 14, 1865, is considered "remarkable." He said it can only be attributed

to his extraordinary vitality and the intelligent measures taken by a 23-year-old Army surgeon, Dr. Charles A. Leale.

Dr. Leale was the first physician to reach the wounded President. Finding him unconscious from an obviously severe brain injury, the young doctor tried to revive him by breathing into his mouth and by pouring a small amount of diluted brandy between his lips. A fluttery pulse could then be felt.

The President was taken to a boarding house across the street from the theater where efforts were made to ease the pressure on the brain. Later an unsuccessful probe for the bullet was made although extraction of the bullet was not seriously considered.

Dr. Leale and two other attending physicians then were forced to conclude that they had done all they could to stay the inevitable end.

Today's physicians would have followed virtually the same procedure.

"In spite of their vastly improved techniques, they could do little more than had been done by the medical men almost a century ago," Dr. Eisenschiml said.

"But if by some miracle Lincoln's life had continued, he would have been totally blind, at least partially paralyzed, subject to meningitis and epilepsy.

"All in all, the martyred President himself undoubtedly would have preferred to die rather than become the hopeless wreck and object of pity which he would have been, had he lived on."

STATISTICS PROVE SIX HORMONES AID VICTIMS OF BREAST CANCER

The first statistical proof that sex hormones can prolong the life of women with disseminated breast cancer has been published in the Journal of the American Medical Association.

An exhaustive 12-year study also showed that female hormones (estrogens) were "inherently superior" to male hormones (androgens) in treating cancer that has spread from the breast. At the same time the findings disproved a number of commonly held beliefs concerning hormonal therapy.

"The relative effectiveness of these two classes of sex steroids has been determined in physiologically homogeneous groups of such size as to permit statistically valid conclusions for the first time," according to Dr. Ian Macdonald, Los Angeles, chairman of the A.M.A. Subcommittee on Breast and Genital Cancer.

The Journal article is the final report on the study initiated in 1947 under the sponsorship of the A.M.A. Clinical data on 944 women with disseminated mammary carcinoma were pooled from a cross-section of investigators in the United States and Canada. The purpose was to clarify the use of sex hormones which came into use in the '40s.

"It [the study] will undoubtedly serve as a base line for comparative evaluation of studies which are under way in the field of cancer," Dr. Macdonald said.

"The most significant and most consistent phenomenon in the behavior of the disease under hormonal treatment, both by androgens and estrogens, was the increased survival time of patients in whom objective regression of disease occurred," the researchers reported.

The average survival period of those who did not respond to hormone treatment ranged from 8 to 11 months following the initiation of the treatment, which was about the same as that for those receiving no treatment.

However, for those who responded to the treatment, the survival time ranged from 18 to 27 months.

"Further," the report said, "the estrogens now must be recognized as inherently superior to androgens in a qualitative fashion and by a significant degree."

The frequency of tumor regression among 580 patients treated with androgens was 21.4 per cent. The frequency of a measurable decrease in cancer among 364 patients treated with estrogens was 36.8 per cent.

The estrogen-treated patients also survived for a longer period of time than did those treated with androgens.

Those who responded to estrogens lived for an average of 27.3 months, compared with 19.1 for those given androgens.

The female hormones were given only to women in which menopause had occurred. Before menopause, estrogens may augment breast cancer.

The subcommittee, on the basis of the study, recommended estrogens as the agents of choice after the fourth postmenopausal year.

The findings refuted the idea held by some that estrogens should not be used until 10 years after menopause, the researchers said.

The study also debunked the belief that androgens were of greater therapeutic value at all ages for cancer involving the bones. It showed that estrogens and androgens were of equal value in the treatment of bony involvement.

The belief that both types of hormones become more effective by reason of a trend in aging women to develop cancers of a less aggressive pattern was not borne out by the study.

It was found that the older woman realizes longer survival than the younger, on the average, but she also tolerates the presence of clinically detectable cancer for a greater fraction of that increased life span.

The effectiveness of hormonal treatment was influenced by the age of the patient. In general, the probability of suppressing the cancer increased in rough proportion to the passage of years, with two exceptions.

In the fifth decade, and after the age of 80, the effectiveness of the androgens decreased from the level of the previous decade. In terms of endocrinologic age, the estrogens reached a plateau of effectiveness after the eighth.

The study also showed:

—The younger the patient is at the time of recognition and treatment of her primary disease, the longer a recurrence is postponed.

—The older the patient was at the time steroid treatment was started, the more likely was a regression to occur.

—In patients with soft tissue lesions, regressions occurred significantly more often after estrogen treatment.

—Estrogens and androgens must both be credited with a greater degree of potency against cancer than previously accorded them.

Other members of the subcommittee are Drs. Alfred Gelhorn, New York; B. J. Kennedy, Minneapolis, and Samuel G. Taylor, III, Chicago.

NEW VACCINE PROVIDES BROADER PROTECTION AGAINST FLU

A new influenza vaccine designed to provide broader protection against future virus variants was described recently in the Journal of the American Medical Association.

Keith E. Jensen, Ph.D., Terre Haute, Ind., reported on a study conducted among institutionalized children and adults to determine the merits of a new vaccine formula containing six strains of flu viruses compared with the current four-strain standard vaccine.

"The data obtained from our study indicate that vaccines containing six strains are efficacious and, further, that a new formula for a vaccine which includes . . . each of these strains would be as safe but more potent than the current four-strain . . . standard vaccine," he said.

"Its use would cause, particularly in children, formation of immunological barriers of greater breadth against new influenza-virus variants."

Children showed better results than adults from the six-strain vaccine. Jensen explained that most children have little, if any, natural antibodies to fight flu viruses whereas adults develop antibodies from previous exposure to the infection.

"It is now clear that children can be provided with antibody complexes comparable to those found in older adults by immunization with a six-strain vaccine," he said.

However, he said, the study showed that persons infected even in the recent past may be susceptible to rein-

fection and therefore should also be vaccinated.

In an accompanying editorial, Jensen said influenza is expected to continue to cause epidemics and new variants are expected to arise periodically.

"The Asian variant can be expected to prevail for several more years before being replaced by a different type A virus," he said.

"Since severity and extent of an epidemic cannot be predicted accurately, annual vaccination is recommended for all age groups."

POLYUNSATURATED FATTY ACIDS CAN REDUCE CHOLESTEROL

The substitution of fats or oils containing polyunsaturated fatty acids for saturated fats or oils is the best way to reduce cholesterol in the blood system on the basis of present information, a New York University physician said recently.

Dr. Herbert Pollack, assistant professor of clinical medicine, Postgraduate Medical School, discussed cholesterol in a signed editorial directed to fellow physicians in the Journal of the American Medical Association.

Cholesterol has been incriminated as a factor in hardening of the arteries and heart trouble.

(The terms saturated, polyunsaturated, and monounsaturated are used to describe the chemical structure of fats and oils. A saturated fat is one containing all the hydrogen atoms it can hold. A polyunsaturated fat is so named because it has more than one unsaturated bond in its chemical makeup. A monounsaturated fat has only one unsaturated bond in its chemical linkage.)

"It is accepted generally that specific alteration in the diet will decrease the concentration of cholesterol in the blood," Dr. Pollack said. "The most effective results to date have been achieved by increasing consumption of polyunsaturated fatty acids, particularly linoleic acid."

At one time, he said, a "low fat, low cholesterol" type of diet was sometimes advocated as a means of lowering the cholesterol level. But he said it is now generally believed that dietary cholesterol, within the limits of the average mixed diet, plays little part in raising the cholesterol concentration in the blood.

Dr. Pollack said confusion has been created because "some of the largest vegetable oil processors in the United States have implied in advertisements that the cholesterol level can be lowered by adding polyunsaturated fatty acids to the diet."

However, he said, a person would benefit little by consuming more polyunsaturated fatty acids if he did not at the same time reduce his intake of other fats. In other words, he said, the polyunsaturated fatty acids "must replace, rather than supplement some of the saturated fats and oils already in the diet."

Claims for various hydrogenated vegetable oils must be assessed with the knowledge that a product loses most or all of its polyunsaturated qualities when it is hydrogenated, Dr. Pollack said. Products are hydrogenated so they can be stored for longer periods without spoiling.

"Some manufacturers cite the 'iodine number' of a fat or oil as evidence of the unsaturated fatty acid content of their product," he continued.

"This number is not a reliable indicator of therapeutic value because it measures monounsaturated and polyunsaturated fatty-acid content at the same time. A monounsaturated acid . . . does not affect the cholesterol concentration of the blood.

"Contrary to statements sometimes made, not all animal fats are low in the polyunsaturated fatty acid content nor are all vegetable oils high in this quality. The depot fat of chicken is an excellent source of linoleic acid.

Many vegetable fats and oils contain appreciable amounts of the polyunsaturated fatty acids and if used properly will lower the blood cholesterol level."

NEW PSYCHOTHERAPEUTIC DRUG BRINGS IMPRESSIVE RESULTS

A new psychotherapeutic drug, methaminodiazepoxide (Librium), has produced "impressive" results in the treatment of various mental disorders. Dr. Titus H. Harris, a Galveston, Texas, psychiatrist said recently.

In a preliminary communication in the Journal of the American Medical Association, Dr. Harris said the drug reduces anxiety and agitation but does not cloud consciousness or impair intellectual function.

"My experience with its use in all types of anxiety, such as convulsive disorders, tension states, obsessive-compulsive conditions, agitated depressions, and jitters in alcoholics indicated that methaminodiazepoxide is one of the most interesting drugs of its type that has been developed," he said.

"Of special interest is its apparent effectiveness in obsessive-compulsive neuroses, which have thus far defied chemotherapeutic management."

Dr. Harris said the drug exerts three primary actions—tranquilization, muscular relaxation and anticonvulsant effect.

"At a recent symposium . . . investigators in a number of medical specialties, including internal medicine, cited impressive results obtained from use of methaminodiazepoxide in a variety of conditions and a freedom from side-effects at therapeutic dosage levels," he said. "These investigations confirm my findings . . .

The drug was described as "one of a new class of compounds" by Dr. Harris, chairman and professor of the department of psychiatry and neurology, University of Texas Medical Branch. He said its unique action on vicious, agitated monkeys, dingo dogs and other wild animals prompted the first clinical trials.

MALIGNANT TUMORS NUMBER TWO KILLER OF CHILDREN

Malignant tumors cause one out of every eight or nine child deaths in this country, according to an article in the Journal of the American Medical Association.

"The importance of malignancy in childhood is growing," the article said. ". . . malignancy now represents the second most frequent cause of death, having been third in 1945."

Dr. W. B. Kiesewetter, surgeon-in-chief, Children's Hospital of Pittsburgh, and Dr. Edward J. Mason, teaching fellow in surgery, University of Pittsburgh School of Medicine, reported on 404 cases of malignant disease in children between 1 and 14 years of age.

The cases represented more than one per cent of total hospital admissions during a six and one-half year period.

It is significant, they wrote, that, while there has been a marked decrease in over-all mortality in the decade 1945-55, there has been an increase in the incidence of malignant neoplasms and congenital malformations. Correspondingly, they said, there has been a relative increase in the importance of malignant neoplasms in the over-all death rate.

The two surgeons said their study showed that "a child is much more vulnerable to malignant disease under the age of 5 years than thereafter."

"Negroid and sinoid children appear to be far less vulnerable to malignancy than caucasoid," they said.

"In spite of the high percentage of negroid children seen as outpatients in the hospital, 391 of the 404 total tumors were in caucasoid children.

"In this series, there was an approximate three-to-two predominance of males over females, with malignant disease being found in 230 males as against 174 females."

Leukemia and lymphoma were the major killers, they reported, accounting for 42 per cent of the deaths.

"Of the total group of 404, 317 were dead at the time of follow-up survey, an over-all mortality of 80 per cent," they said ". . . 75 per cent of those who died from their malignant disease were dead at the end of the first 12 months.

"Cancer certainly is an early killer in childhood if it is not completely cured initially."

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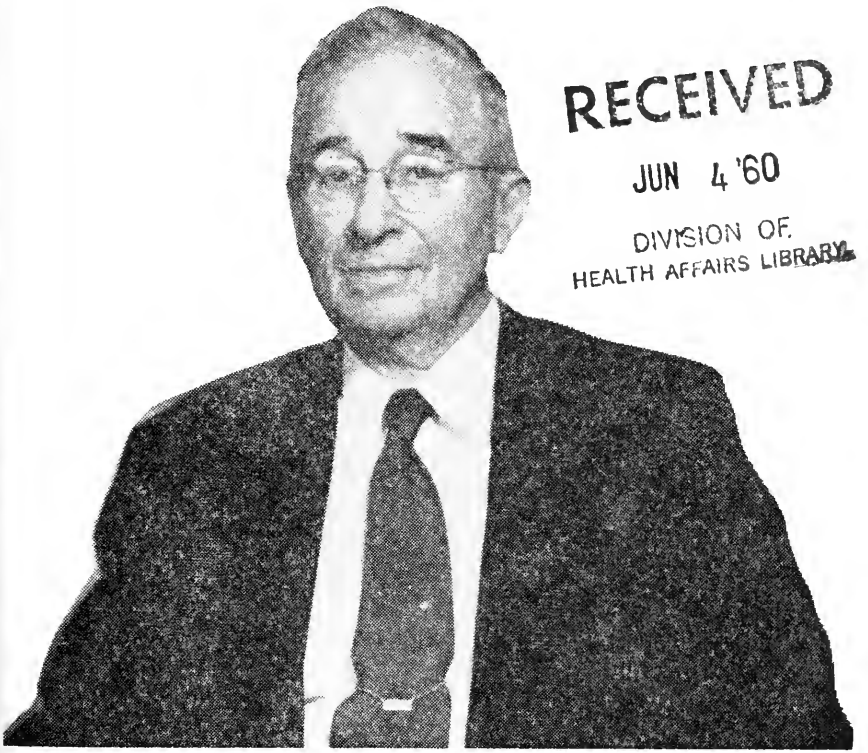
Dr. John Homer Hamilton Retires As Editor



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Editor Retires

With this issue your Editor since January, 1942, is retiring. As this is written, no successor has been named. The June issue will be his introduction to you—the readers of The Health Bulletin. You have been good to the retiring Editor. It is his hope that you will be just as patient, forgiving and understanding with his successor.

Volume I, Number 1, of The Health Bulletin was the April, 1886, issue. Dr. Thomas Fanning Wood of Wilmington, North Carolina's first State Health Officer, was the editor. Dr. Wood announced that the chief purpose of The Health Bulletin was to explain the aims and objectives of public health to the people of North Carolina. All those who have succeeded him, including Dr. Richard H. Lewis, Dr. Watson S. Rankin and Dr. George M. Cooper have endeavored to accomplish the same purpose. We think that this effort has been accomplished to a considerable degree. A well known educator has advised all public health workers to remember that they are not talking to captive audiences but are speaking to a parade. The message of public health must be told over and over again because we have a constant procession of young people who marry, have children, and problems presented by new families.

Through the years we have carried many original articles—some of which

have attracted wide attention. We have endeavored to present some of the newer advances in public health administration. We have also deemed it desirable to tell and retell much of the information which is familiar to our older readers. From the errors which are called to our attention and the requests which we receive for missed copies, we are convinced that we have many interested, careful and discriminating readers. There are 48,000 of them at present—most of them in North Carolina, although there is not a state in the Union to which the Bulletin is not mailed. Included are even a considerable number of foreign countries which are on our mailing list. It is not unusual to receive a letter from a person growing old in which the statement is made that, since he can no longer see to read, he would like for his copy of The Health Bulletin to be sent to a grandchild or a favorite niece or nephew. All this has been heartening to the Editor. Even though conscious of his own inadequacy, he cannot but feel that the effort was worth while. Let us all hope that the new Editor will have smooth sailing.

With Apologies To The Editor

Rarely does one feel disposed to change any of Dr. Hamilton's plans, particularly those relating to his able editorship of **The Health Bulletin** which has had his wise leadership since 1942. However, the desire of the staff of the State Board of Health and his other friends who receive this publication must overrule the editor in this issue. Dr. Hamilton's picture and the expression of appreciation adopted by the State Board of Health have been substituted for other material sent to the printer by Dr. Hamilton. I believe all of the 48,000 to whom this issue goes will approve this action.—J.W.R. Norton

An Appreciation of Dr. John Homer Hamilton

The North Carolina State Board of Health expresses its gratitude to Dr. John Homer Hamilton for the lifetime of service that he has rendered to the State of North Carolina through the medium of public health.

Born in Ash Grove, Missouri, Dr. Hamilton moved with his family to Oklahoma while he was still a boy. He graduated from Oklahoma Agricultural and Mechanical College in 1910; taught science in Cherryvale, Kansas, 1910-1911; served as a chemist at the Institute of Animal Nutrition, Pennsylvania State College, 1911-1912; entered the Harvard Medical School in 1912, and graduated with a medical degree in 1916.

After graduating from Harvard, he served as Associate Bacteriologist, Division of Laboratories and Research, New York State Department of Health, 1916-1918. He then became Associate Professor of Preventive Medicine and Assistant Director, State Public Health Laboratory, University of Iowa, 1918-1919.

He served as Associate State Director, International Health Division, Rockefeller Foundation, 1919-1920.

Dr. Hamilton came to North Carolina in 1920 as County Health Officer for New Hanover County, and in 1931 he came to the State Board of Health, where he became Director of the Division of County Health Work and Epidemiology.

In 1933 he became the second Director of the North Carolina State Laboratory of Hygiene. He has been Assistant State Health Director since 1931 and editor of **The Health Bulletin** since 1942.

Dr. Hamilton believes, with a great many other thoughtful people, that next to the ministry of religion the ministry of health constitutes the noblest calling in which man can en-

gage. He has devoted a lifetime to the ministry of public health, and by example and encouragement has inspired young people to enter, to remain in and to give dedicated service to the profession. Thus, his influence is felt around the world.

Concurrent with his work in public health, Dr. Hamilton has served as an officer in several professional associations and is affiliated with various medical, public health, and cultural organizations. He is a member of the Raleigh Academy of Medicine, Wake County Medical Society, Medical Society of the State of North Carolina, the American Medical Association, and the Southern Medical Association.

In 1928 Dr. Hamilton served as president of the North Carolina Public Health Association and in 1944 took leadership in promoting the Laboratory Section of the Association. He is a Fellow of the American Public Health Association, Charter Member and Fellow of the American College of Preventive Medicine, and a Member of the Conference of State and Provincial Public Health Laboratory Directors. In 1946 he served as president of the North Carolina Academy of Public Health, and in 1954-1955, as president of the North Carolina Academy of Preventive Medicine.

Dr. Hamilton is a member of the North Carolina Harvard Club, Executives Club of Raleigh, State Literary and Historical Association of North Carolina and the North Carolina Society for the Preservation of Antiquities. He is a member of the White Memorial Presbyterian Church in Raleigh.

In his contact with the staff and employees of the State Board of Health and with the people of North Carolina, Dr. Hamilton is first and foremost kind, understanding and considerate. His judgment and wisdom are keystones on which public health workers all over North Carolina have come to rely.

His appearances before appropriating and governing bodies in support of health programs in North Carolina have been models of accuracy, pinpointing the salient facts of each bill, stressing economy of state money, the greatest service to the greatest number of citizens, and keeping public health in its proper perspective in relation to the total health program.

The State Board of Health, recognizing his qualities of leadership, patience, wisdom, and kindness, is deeply grateful to Dr. Hamilton for his devoted service to public health and wishes for him many years of health and happiness.

May 11, 1960

Charles R. Bugg, M.D.
President
J. W. R. Norton, M.D.
Secretary-treasurer

A. C. Bulla Health Center
March, 1960

Ordinarily The Health Bulletin notes health centers only when they are completed. Ordinarily we place pictures of health centers only on the front cover, however, this is no ordinary occasion for this Health Center is named in honor of the man who for thirty-eight years guided Wake County's health program.

It is the retiring editor's desire that both the man and the Center be recognized in this issue of The Health Bulletin. During all the years of Dr. Bulla's administration as Wake County's Health Officer there was no blowing of trumpets or beating of drums. In his own quiet way he accomplished great things in the field of public health. A prominent citizen of Raleigh recently expressed the opinion that Dr. Bulla was not only the best known man in Wake County but that he was also the best loved man in the County. During his long service practically every one born and reared in the County had come in personal contact with him. For many he had administered some immunizing treat-

ment; for others he had made physical examinations while they were school children. While he may have caused pain momentarily, the hurt was soon replaced by a feeling of gratitude. Dr. Bulla worked smoothly with the medical profession. His public relations were always excellent. The Wake County Board of Health voted unanimously to name the new Health Center for him. The Wake County Commissioners endorsed their recommendations. No word of dissent has been heard from any citizen in the County. As of May, 1960, the building is practically finished. The A. C. Bulla Health Center will be dedicated in the summer (Photo in later issue.)

Maternal And Infant Mortality

Again it is May, the month in which we traditionally concentrate our attention on child health and mothers and potential mothers of children. We in North Carolina have considerable justification for being proud of our over-all health program. In dealing with most of our health problems we ordinarily rank among the upper third of the states in an unbiased evaluation of the effectiveness of our programs. When we consider the problems of maternal and child health, however, we must hang our heads in shame. We not only fall in the lower third but are near the bottom of that category. Only seven states in the Union have higher rates for maternal mortality and infant mortality. It is true that they are not the same states in each case. North Carolina's maternal mortality rate is 5.4 That for the nation is 3.8. Only Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi and South Carolina have higher rates than North Carolina. Our infant mortality rate is 32.6. That for the United States is 27.1. Only Alabama, Arizona, Louisiana, Mississippi, New Mexico, South Carolina and the District of Columbia have higher rates than North Carolina. On page 11 you will find the statistical data for the nation and on page 12 comparable information for North Carolina and the counties thereof.

Maternal mortality rates are computed on the basis of the number of deaths due to childbirth per 10,000 live births. Since no county in North Carolina has as many as 10,000, our maternal mortality rates by county fluctuate widely. Mecklenburg County had the largest number of births—6,951; it had 7 maternal deaths, which give it a rate of 10.1. Hyde County had only one maternal death; yet it had a rate of 85.5, since there were only 117 births during the year 1959.

Infant mortality rates are computed on the basis of the number of deaths among babies less than one year of age per thousand live births. For a considerable number of our counties therefore the infant mortality rates must be accepted as accurate by reason of the fact that they had more than 1,000 live births during the year.

The 1958 infant mortality rate for the nation was 27.1. North Carolina's rate for 1958 and its provisional rate for 1959 were both 32.6. Fifty-two counties in the State had provisional 1959 rates in excess of 32.6. The following counties having more than 500 births in 1959 and infant mortality rates in excess of 35 therefore contributed largely to North Carolina's excessively high rate and its poor showing among the states.

Anson	36.5	Lincoln	36.9
Beaufort	44.6	Martin	38.5
Bertie	58.3	Nash	46.8
Brunswick	40.5	New Hanover	38.8
Columbus	51.1	Northampton	51.6
Davidson	43.3	Person	44.5
Duplin	38.6	Pitt	35.1
Edgecombe	39.3	Richmond	36.0
Franklin	46.3	Robeson	43.8
Halifax	43.8	Sampson	36.0
Harnett	36.5	Scotland	35.2
Hertford	38.2	Union	44.3
Lee	58.5	Vance	51.7

As I count them, there are 26 of these counties having rates in excess

of 35. Nine counties had rates between 40 and 50, and four had rates in excess of 50. However, there are 17 counties in the State which we would place on the honor roll by reason of the fact that they had infant mortality rates less than those of the Nation. They are:

Alamance	23.8	Durham	26.6
Bladen	22.4	Henderson	25.2
Buncombe	26.4	Johnston	26.8
Burke	26.9	McDowell	20.6
Cabarrus	27.0	Moore	23.8
Carteret	26.6	Rockingham	23.7
Catawba	22.1	Rowan	23.6
Cleveland	26.2	Surry	23.3
Cumberland	25.1		

Undoubtedly, there is some reason why we have high maternal and infant mortality rates. Unfortunately, we have not dug deeply enough into the problem to make an accurate diagnosis. In the article which Dr. Charles Williams contributed to the May, 1958, Health Bulletin some light was thrown on the situation. In a report dated March 31, 1960, Dr. James F. Donnelly, current Chief of the Maternal and Child Health Section of the State Board of Health, published the seventh report covering the year 1958 of a series of annual summary tables for hospitals in which mothers are delivered of their babies. These tables contain much interesting information. During that year, in 191 hospitals there were 96,270 live births; there were 11,717 births in homes. For all births in hospitals the weight of each baby was accurately recorded. In Dr. Donnelly's report these weights are given in grams. Since most of our readers think in terms of pounds, we will convert the weight roughly to pounds. There were 95 live births in which the babies weighed less than one and one tenth pounds. It is not surprising that 85% of these died shortly after birth. There were 481 weighing between 1.1 and 2.2 pounds; 87.9% of these died shortly after birth. There were 765 babies weighing between 2.2 and 3.3 lbs.; 50.8% of these babies died shortly after birth. There were 5,342 babies weighing between 4.4 and 5.5 lbs.; 4.3% of these babies died shortly after birth. There were 19,587 babies born weighing from 5.5 to 6.6 lbs.; only 1.1% of these babies died shortly after birth. Thus we see that the weight of the baby at birth plays a very important part in determining whether it lives or dies. If the baby weighs 8.8 lbs., its chance of survival increases somewhhat. Most babies weighing less than 2.4 lbs. are premature. Although we have hospitals distributed throughout the State which have special equipment designed to give premature babies a better chance in life, there is no question but what prematurity contributes markedly to our infant mortality rates. We have yet to determine the principal causes of prematurity. Some day we hope that the local health directors of counties having high mortality rates will devote sufficient study to the problems peculiar to their own jurisdictions. It is only when we have information of this sort that effective control programs can be inaugurated.

Notes And Comment

SOCIAL EFFECTS OF PEP PILLS CAN BE GOOD AND BAD

Amphetamine, a commonly used stimulant, can have both a good and a bad effect on an individual's social behavior, a study indicated.

The conclusion was based on a study involving athletes given the so-called "pep pills" and asked to describe how they felt before and after by filling out an 81-item check list.

Writing in the Journal of the American Medical Association, Gene M. Smith, Ph.D., and Henry K. Beecher, M.D., of the Harvard Medical School, said there has been considerable interest in the question of whether amphetamine produces temporary alterations in personality which might facilitate antisocial behavior.

The authors referred to reports that

lawbreakers take "thrill pills" to bolster their courage to commit crimes and pointed out that the same type of pills are believed to be in widespread use by students, businessmen, and other noncriminal citizens.

"In the present investigation," they said, "increased feelings of mental and physical activation, elation, boldness, and friendliness were the main effects of amphetamine on mood and physical states.

"The increase in effects classified as boldness and friendliness is pertinent to the issue of antisocial behavior; perhaps the increased checking of drunk and impulsive is also, since increases in these two effects may imply a reduction in self-control."

The athletes checked the "bold, boastful, cocky, self-confident, playful, and domineering" categories more and the "insecure" category less when under the influence of amphetamine, the researchers said.

"Those mood changes might, under certain circumstances, facilitate antisocial behavior, particularly the changes in feelings which account for the increased checking of cocky and domineering," they said.

"However, the increased boldness was accompanied by greater friendliness, as indicated by more checking of friendly, talkative, good-natured, obliging, and trustful, and less checking of grouchy, unsocial, and sarcastic."

The consequences of simultaneously increasing friendliness and boldness are not known, they said. Furthermore, they said, it is almost certain that such behavior consequences would be strongly influenced by social and environmental circumstances.

"The data of the present investigation indicate that most non-delinquent persons who take amphetamine in a moderate dose, such as that used in the present study, and who do so in a situation in which social forces tend to inhibit rather than promote antisocial behavior, are likely to experience mood effects which contain both socially positive and socially negative elements," they concluded.

An earlier report by the same authors showed that average doses of amphetamine improved athletes' performances.

Both men are associated with the Anaesthesia Laboratory of the Harvard Medical School at the Massachusetts General Hospital, Boston.

MIDGET BASEBALL PRESENTS HEALTH HAZARDS

Little league baseball presents a situation that can prove harmful to the health of participating youngsters, say two physicians in Today's Health magazine.

Drs. Thomas E. Shaffer, Columbus, Ohio, and John L. Reichert, Chicago, said there were many undesirable features in organized midget baseball, but neither disagreed with the underlying theory that the leagues can promote healthy competition.

"No informed person will deny competition is an essential part of every child's education and growth," Dr. Reichert said in the American Medical Association magazine.

"But it is equally true that competitive drives must be allowed to develop normally and not be overstimulated or suppressed, so that as the child matures, competition and cooperation are balanced forces in his personality," he said. "A child can best be developed in respect to posture, coordination, strength and control, and emotional balance by a process of gradual training during the years of physiological immaturity, not by the forced development of special athletic skills."

With regard to injuries, Dr. Reichert said, "Pre-adolescent and adolescent children are in a vulnerable age.

"During this age there are periods of rapid growth with temporary maladjustments and weaknesses. During these periods, the child is particularly susceptible to dislocations of joints and to bone injuries."

Dr. Shaffer said athletic competition for children is undesirable when organized along adult patterns. In such cases, he said, the unavoidable

emphasis placed on winning puts too many pressures on children.

". . . competitive physical activities for this age group are desirable provided they are conducted with due regard for developmental characteristics such as short attention span, variations in physical skills, and a natural tendency to disregard need for rest and relaxation," he said.

"Most of the undesirable features of the little leagues could be eliminated by discontinuing sponsorship of teams by business organizations, by eliminating tournaments except on a community-wide championship schedule, by requiring medical examination at the start of a season and during the season if accident or illness occurred, and by requiring trained, experienced individuals in positions of leadership."

The article was written by Dennis Orphan, associate editor of the magazine.

HANDY CARDS TELL WHAT TO DO IN CASE OF POISONING

Handy reference cards telling what to do in case of accidental poisoning and how to prevent such emergencies have been made available by the American Medical Association.

The cards reflect a growing awareness of the magnitude of the problem, according to Bernard E. Conley, Ph.D., secretary of the A.M.A. Committee on Toxicology.

Statistics show that 1,422 persons, 355 of them pre-school children, were killed in one year by packaged chemicals, such as detergents, cleansers, and other household cleaning agents, while thousands were injured.

"The first aid for poisoning chart serves as both a reminder of the dangers of accessible poisons to small children and as a help in meeting poisoning emergencies," Dr. Conley said. "Its life-saving potential may be equated with its value in educating the public on what to do when poisoning occurs."

As another means of preventing poisoniings, the A.M.A. is supporting a bill, now before Congress, that would require household, commercial, and industrial products to carry labels listing their contents.

The cards, suitable for attaching to medicine cabinets, may be obtained free of charge from the Committee on Toxicology, American Medical Association, 535 Dearborn St., Chicago 10, Ill.

SURPRESSED ANGER RAISES BLOOD PRESSURE

A close relationship between suppressed anger and high blood pressure was reported recently in Archives of General Psychiatry.

Dr. Donald Oken, Chicago, writing in the American Medical Association journal, said a study of 10 psychiatric patients with normal blood pressure provides "additional support for the hypotheses which relate hypertension and inhibited anger."

In the study, interviewers aroused anger, anxiety and depression in the 10 subjects while their physiological response was being recorded.

"The data obtained in this study indicate a close relation between anger and both heart rate and blood pressure, especially the latter," Dr. Oken said.

When subjects who expressed their anger vocally and physically were compared with those who repressed it, the latter showed a higher diastolic blood pressure, but there was no significant difference in heart rate.

In the absence of heart rate changes, Dr. Oken said, diastolic blood pressure is primarily a function of peripheral resistance (the narrowing of the smallest branches of the arteries throughout the body).

The results indicate that "persons who inhibit anger will have a higher diastolic blood pressure (and peripheral resistance) than those who more freely express it," he said.

"The relevance of these findings to the thesis that essential hypertension may be the result of chronically inhibited angry feelings is clear. This disease is characterized by an elevated peripheral vascular resistance."

Although the findings are far from "proof" that anger plays a causal role in hypertension, he said, they do underline the importance of anger and the need for its further study.

Dr. Oken is associated with the Institute for Psychosomatic and Psychiatric Research and Training, Michael Reese Hospital.

BABIES NEED EARLY SHOTS AGAINST WHOOPING COUGH

A baby's best protection against whooping cough is early vaccination or the immunization of the older children in the family, two San Francisco physicians have said.

Whooping cough (pertussis) remains second to bronchopneumonia as "the most significant infectious disease of infancy," Drs. Stephen Kaufman and Henry B. Bruyn wrote in the Journal of Diseases in Children, published by the American Medical Association.

They said a study of the 199 patients with whooping cough who were admitted to San Francisco General Hospital during a 10-year period showed child-to-child contact within the home was "the most important means" by which whooping cough is contracted.

The newborn can be best protected by adequate primary immunization or booster inoculation of other children in the family before the baby arrives, they said.

The usual method of immunization consists of three shots one month apart beginning at one to two months of age, they said.

"This type of immunization will prevent the disease or mitigate its severity," they wrote.

Because the greatest sickness and mortality due to whooping cough occur during the first three months of life, they said, protection against the disease is of "major importance" at that age.

Thirty-eight per cent of the patients in the San Francisco study were under six months of age, and 57 per cent were under one year. Almost half of them contracted the disease from other children.

The two physicians called whooping cough "still a significant and dangerous disease, causing more deaths in the first year of life than measles, scarlet fever, diphtheria, and poliomyelitis combined."

However, they said, "with the reduction of the danger of secondary bacterial complications through the use of appropriate antibiotics, the mortality rate has been reduced markedly."

Both physicians are affiliated with the department of pediatrics, University of California Medical Center.

TESTS INCONCLUSIVE ON VALUE OF FLUORIDE TOOTHPASTES

So far there is no conclusive proof that fluoride toothpastes prevent tooth decay.

At present, one can only speculate or theorize regarding the value of fluoride dentifrices in controlling decay, according to Francis A. Arnold Jr., D.D.S., National Institute of Dental Research, Bethesda, Md.

"The results of clinical trials made so far are as controversial as are those obtained by the use of other dentifrices," he said.

Dr. Arnold's remarks were in a report on the present status of dental research in the study of fluorides appearing in Archives of Industrial Health, published by the American Medical Association.

He made these other points:

—The use of fluoride compounds, which are applied by dentists, are of value in preventing decay, particularly in areas where fluoridation of public water supplies is not feasible.

—The use of fluoride supplements to the daily diet presents problems and requires daily supervision. Such supplements are most effective during formation of the teeth.

—More than 1,500 communities are fluoridating their water supplies. This method undoubtedly has as much scientific support for its safety and effectiveness as any other public health procedure.

TRACHOMA VACCINE BEING TESTED ON FORMOSA

A newly developed vaccine against trachoma, a centuries-old disease causing blindness, is being tested on Formosa where it was developed by U.S. Navy researchers.

A preliminary study of the effectiveness of the vaccine provides "some reasons for optimism," according to an article in the Journal of the American Medical Association.

Trachoma vaccine appears to be "entirely safe," the researchers said.

More than 450 persons have been given the vaccine without any serious reactions, they said, and it has produced significant immunity in monkeys and humans.

The vaccine produced in humans an antibody response equivalent to that produced by natural trachoma infection, they reported.

A field study to determine the vaccine's ability to prevent trachoma in uninfected children of families in which trachoma is prevalent has been started in a rural district on the west coast of Formosa, the Journal article said. A study of the effect of the vaccine on children already infected with the disease also is under way in the same district.

The field studies "are designed for long-term follow-up investigation in order to obtain basic information on the immunology of the disease as well as data on the protective or curative effect," the researchers said.

Some evidence suggesting a curative effect of the vaccine was reported. Six persons were voluntarily infected with one of five trachoma viruses isolated on Formosa and then were treated with vaccine injections. While far from conclusive, they said, the results suggest that the vaccine has had a favorable influence on the course of the infections.

The trachoma virus was first reported isolated in Peking in 1957. The highly contagious disease, once an almost universal affliction, is still widespread in China, Egypt, India and other eastern countries.

The authors of the article are J. Thomas Grayston, M.D., San-Pin Wang, M.D., Robert L. Woolridge, M.S., Yen-Fei Yang, M.D., and Paul B. Johnston, Ph.D., of U.S. Naval Medical Research Unit No. 2, Tapiei.

RUSSIAN MEDICINE INFERIOR TO U.S.

The overall quality of Russian medicine is "well below" that of the United States, according to Today's Health magazine.

An article in the American Medical Association magazine said "the kind of medical care the Russian people receive varies widely from one location to another.

"Russia is a vast and sprawling land and most of its people live away from the cities. The kind of public health, sanitation and medical care they enjoy, therefore, is by our standards poor."

"The State insists on medical services to all citizens, but it gives the physician a limited budget, insufficient laboratory personnel and equipment, and saddles him with a patient and administrative load far in excess of that which any physician can handle and still practice a high quality of medicine," it said.

"The Soviet Union has been able to achieve widespread medical care by speeding up the training of its physicians and by employing, on a wide scale, subprofessional personnel . . . and others with even less training."

The article also mentions a scarcity of drugs and other medical supplies and points out that most medical visitors to Russia are struck by the fact that medical equipment ranges from modern to archaic.

Another weakness, it said, was the separation of basic experimental work from clinical research, i.e., research that applies to human beings.

Dr. Michael E. De Bakey, a distinguished American surgeon who visited Russia in 1958, was quoted as saying that "this lack of integration tends to make some of the studies pointless and to provide information that has no clinical significance . . . and no fundamental value."

RESIDENT LIVE BIRTHS, INFANT DEATHS, AND MATERNAL DEATHS WITH RATES: UNITED STATES AND EACH STATE, 1958

(Infant mortality rates per 1,000 live births.
Maternal mortality rates per 10,000 live births.)

Area	Live Births Number	Infant Deaths Number	Infant Deaths Rate	Maternal Deaths Number	Maternal Deaths Rate
United States	4,203,812	113,789	27.1	1,581	3.8
Alabama	82,428	2,920	35.4	67	8.1
Arizona	33,000	1,090	33.0	15	4.5
Arkansas	40,892	1,075	26.3	26	6.4
California	349,598	8,595	24.6	106	3.0
Colorado	41,842	1,281	30.6	7	1.7
Connecticut	56,374	1,339	23.8	13	2.3
Delaware	11,574	325	28.1	4	3.5
Dist. of Columbia	19,658	760	38.7	5	2.5
Florida	107,996	3,426	31.7	64	5.9
Georgia	99,928	3,111	31.1	63	6.3
Idaho	16,762	398	23.7	3	1.8
Illinois	234,980	5,859	24.9	71	3.0
Indiana	112,452	2,768	24.6	31	2.8
Iowa	62,372	1,418	22.7	21	3.4
Kansas	51,766	1,192	23.0	12	2.3
Kentucky	74,258	2,164	29.1	27	3.6
Louisiana	90,294	3,129	34.7	54	6.0
Maine	23,134	613	26.5	8	3.5
Maryland	75,960	2,189	28.8	23	3.0
Massachusetts	115,020	2,618	22.8	21	1.8
Michigan	202,900	4,982	24.6	60	3.0
Minnesota	84,992	1,941	22.8	17	2.0
Mississippi	59,242	2,430	41.0	49	8.3
Missouri	96,866	2,553	26.4	33	3.4
Montana	17,270	444	25.7	3	1.7
Nebraska	32,972	814	24.7	9	2.7
Nevada	6,792	217	31.9	3	4.4
New Hampshire	13,198	329	24.9	3	2.3
New Jersey	130,196	3,185	24.5	50	3.8
New Mexico	28,650	1,068	37.3	9	3.1
New York	360,662	8,826	24.5	134	3.7
North Carolina	110,698	3,604	32.6	60	5.4
North Dakota	16,528	412	24.9	2	1.2
Ohio	234,350	5,939	25.3	74	3.2
Oklahoma	50,286	1,377	27.4	17	3.4
Oregon	36,278	848	23.4	6	1.7
Pennsylvania	250,208	6,371	25.5	82	3.3
Rhode Island	18,350	391	21.3	5	2.7
South Carolina	60,702	2,055	33.9	43	7.1
South Dakota	17,316	455	26.3	5	2.9
Tennessee	82,770	2,560	30.9	38	4.6
Texas	246,498	7,555	30.6	119	4.8
Utah	25,508	565	22.1	8	3.1
Vermont	9,416	211	22.4	2	2.1
Virginia	96,664	3,010	31.1	46	4.8
Washington	65,664	1,712	26.1	10	1.5
West Virginia	44,212	1,167	26.4	19	4.3
Wisconsin	96,202	2,272	23.6	31	3.2
Wyoming	8,134	226	27.8	3	3.7

Source: National Office of Vital Statistics

PHSS: April 4, 1960

RESIDENT LIVE BIRTHS, INFANT DEATHS, AND MATERNAL DEATHS WITH RATES: NORTH CAROLINA AND EACH COUNTY, 1959*

(Infant mortality rates per 1,000 live births.
Maternal mortality rates per 10,000 live births.)

Area	Live Births	Infant Deaths		Maternal Deaths	
	Number	Number	Rate	Number	Rate
North Carolina	110,498	3,601	32.6	55	5.0
Alamance	2,063	49	23.8	1	4.8
Alexander	347	9	25.9	—	—
Alleghany	139	4	28.8	—	—
Anson	575	21	36.5	1	17.4
Ashe	435	13	29.9	—	—
Avery	270	13	48.1	—	—
Beaufort	808	36	44.6	1	12.4
Bertie	617	36	58.3	1	16.2
Bladen	713	16	22.4	—	—
Brunswick	518	21	40.5	—	—
Buncombe	2,579	68	26.4	—	—
Burke	1,040	28	26.9	—	—
Cabarrus	1,555	42	27.0	—	—
Caldwell	1,242	34	27.4	—	—
Camden	142	2	14.1	—	—
Carteret	676	18	26.6	—	—
Caswell	415	15	36.1	—	—
Catawba	1,720	38	22.1	—	—
Chatham	559	17	30.4	1	17.9
Cherokee	296	10	33.8	—	—
Chowan	334	11	32.9	1	29.9
Clay	112	3	26.8	—	—
Cleveland	1,563	41	26.2	—	—
Columbus	1,252	64	51.1	—	—
Craven	2,004	64	31.9	—	—
Cumberland	4,785	120	25.1	4	8.4
Currituck	136	9	66.2	—	—
Dare	138	3	21.7	—	—
Davidson	1,780	77	43.3	1	5.6
Davie	361	12	33.2	—	—
Duplin	984	38	38.6	1	10.2
Durham	2,517	67	26.6	—	—
Edgecombe	1,425	56	39.3	—	—
Forsyth	4,546	148	32.6	2	4.4
Franklin	627	29	46.3	—	—
Gaston	2,907	89	30.6	—	—
Gates	221	4	18.1	—	—
Graham	145	2	13.8	—	—
Granville	744	21	28.2	—	—
Greene	511	17	33.3	—	—
Guilford	5,790	191	33.0	3	5.2
Halifax	1,599	70	43.8	3	18.8
Harnett	1,097	40	36.5	1	9.1
Haywood	877	28	31.9	—	—
Henderson	714	18	25.2	—	—
Hertford	576	22	38.2	—	—
Hoke	448	21	46.9	1	22.3
Hyde	117	4	34.2	1	85.5
Iredell	1,448	42	29.0	—	—
Jackson	330	6	18.2	—	—
Johnston	1,342	36	26.8	1	7.5
Jones	271	13	48.0	1	36.9
Lee	684	40	58.5	—	—
Lenoir	1,526	51	33.4	2	13.1
Lincoln	623	23	36.9	—	—
McDowell	631	13	20.6	—	—
Macon	282	7	24.8	—	—
Madison	302	9	29.8	—	—
Martin	676	26	38.5	1	14.8
Mecklenburg	6,951	210	30.2	7	10.1
Mitchell	326	11	33.7	—	—
Montgomery	451	19	42.1	—	—
Moore	925	22	23.8	—	—
Nash	1,431	67	46.8	—	—
New Hanover	1,728	67	38.8	1	5.8
Northampton	640	33	51.6	1	15.6
Onslow	3,237	93	28.7	1	3.1
Orange	1,037	29	28.0	—	—
Pamlico	212	5	23.6	—	—
Pasquotank	642	22	34.3	—	—
Pender	430	16	37.2	—	—
Perquimans	209	2	9.6	—	—
Person	674	30	44.5	—	—
Pitt	1,739	61	35.1	1	5.8
Polk	229	3	13.1	—	—
Randolph	1,281	35	27.3	—	—
Richmond	945	34	36.0	1	10.6
Robeson	2,578	113	43.8	3	11.6
Rockingham	1,564	37	23.7	—	—
Rowan	1,779	42	23.6	—	—
Rutherford	970	32	33.0	—	—
Sampson	1,138	41	36.0	2	17.6
Scotland	710	25	35.2	—	—
Stanly	804	26	32.3	1	12.4
Stokes	457	8	17.5	—	—
Surry	1,072	25	23.3	—	—
Swain	220	5	22.7	—	—
Transylvania	388	11	28.4	—	—
Tyrrell	104	9	86.5	—	—
Union	1,038	46	44.3	1	9.6
Vance	755	39	51.7	—	—
Wake	3,961	122	30.8	2	5.0
Warren	488	27	55.3	1	20.5
Washington	340	15	44.1	—	—
Watauga	367	13	35.4	1	27.2
Wayne	2,335	77	33.0	1	4.3
Wilkes	1,041	31	29.8	—	—
Wilson	1,425	42	29.5	3	21.1
Yadkin	450	20	44.4	—	—
Yancey	293	11	37.5	—	—

*Data are provisional and include receipts through January 1960 for 1959 occurrences.

Source: Public Health Statistics Section

April 4, 1960

THE HEALTH BULLETIN

The Official Publication Of The North Carolina State Board of Health

Medical Society Presidents

Dr. Amos N. Johnson (right) of Garland was elected President of the Medical Society of the State of North Carolina at the 1960 annual meeting. With him is seen Dr. John C. Reece of Morganton, the retiring President.

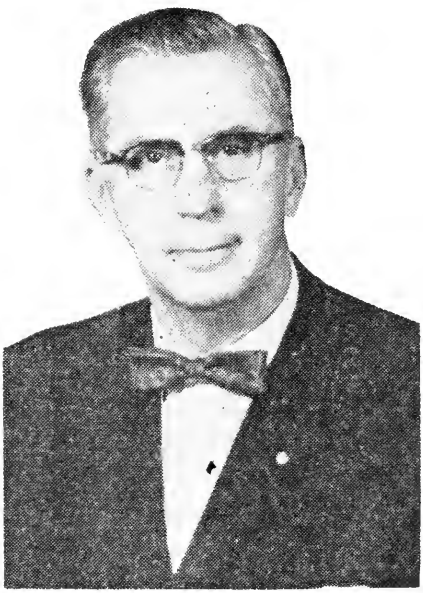
(The State Board's report made before the Conjoint Session is in this issue).

New Editor Selected For The Health Bulletin

I am glad to be able to announce the selection of Edwin S. Preston, M.A., LL.D., as the new editor of **The Health Bulletin.** In this position, Dr. Preston will succeed Dr. John H. Hamilton who since January, 1942 has served in this post. An able and widely representative Editorial Board has agreed to serve in an advisory capacity.

Dr. Preston is an experienced editor, having served for eight years as editor of **The Public Welfare News**, official publication of the N. C. State Board of Public Welfare. In this responsibility and in other relationships he has had wide experience in writing and in editing material in the health and welfare fields.

A graduate of the University of Tennessee where he also studied law, Dr. Preston is a member of the Tennessee Bar. He received the M.A. degree from Mercer University and the LL.D. degree from Baylor University in Waco, Texas.



Edwin S. Preston

Dr. Preston served in the educational field prior to coming to the N. C. State Government in 1951. He was in an executive capacity with Shorter College and Meredith College and was President of Central College in Arkansas and of Cumberland University in Tennessee.

In December of 1959 he came to the State Board of Health as Public Relations Officer from a similar position with the State Board of Public Welfare. He will continue his public relations responsibilities as he assumes these new editorial duties.

Dr. Preston is active in civic affairs and in other areas. He has served as Vice-Chairman, the 1960 National Red Cross Convention; Director, Raleigh Rotary Club; Chairman, District Rotary Conference; President, N. C. Family Life Council; President, Raleigh Community Ambassador Project; Chairman, 1959 Mayor's Committee for the Observance of United Nations Day; Chairman, Radio and Television Commission of Southern Baptist Convention; Chairman, Publicity for Baptist World Congress; and moderator of weekly TV and radio panels and programs.

Dr. Preston is married to the former Mary Frances Johnson of Atlanta. A married daughter lives in Charlottesville, Virginia. A married son is Corporations Filing Counsel in the Office of the Secretary of State of North Carolina. Mrs. Preston, a graduate of Tift College in Georgia with an M.A. from Mercer University, is Director of Education of the First Baptist Church of Raleigh.

I bespeak for Dr. Preston the same fine and helpful criticism and assistance that has been given to his predecessor by the friends who receive **The Health Bulletin.**

J. W. R. Norton, M.D.
State Health Director

Report Is Made Before Conjoint Session

By
John R. Bender, M.D.**
Winston-Salem, North Carolina

Within the past four months, I have read two scathing editorials in medical journals from other states in which vile and ridiculous criticism was aimed at the entire system of public health—from top to bottom and bottom to top.

Editor number 1, would have his readers believe that the physician in private practice has spread himself so thin in his eagerness to serve humanity that he has welcomed an opportunity to let someone else, either individual or group within or outside the medical profession, "take over for a spell". And by so doing, he now finds that he is being gradually destroyed by the exploits of technical experts, reformers, political bureaucrats and socialistic agencies, taking over one disease and then another.

Editor number 2, was even more militant in expressing his resentment against "certain policies and practices of the local health department actively engaged in the private practice of medicine". "The infringments", he said, "are the handiwork of the local health directors, who are receiving tacit endorsement for their culpability by those in higher echelons (in the State Department)".

"The basic philosophy of this agency is socialistic", the editorial continues, "and its present position behind sacrosanct bastions is seemingly secure from reprisals".

My only reason for taking your time and mine in mentioning either of these editorials, is because there are some physicians practicing in North Carolina today, perhaps even a few of them in this audience, (yet I doubt that) who have the same feelings of resentment and garrulous criticism of the State Board of Health and the local health departments in North Carolina, as were expressed in these editorials.

Our Part in Shared State Programs

As a member of the State Board of Health, I am, therefore, a party to and a part of this socialistic agency which condones the usurpation of the practice of medicine by the local health department! Oh, that my throat was cut and my tongue torn out for being accessory to so vile an agency that: (in brief summary)

1. We have worked unceasingly with Dr. Sam Ravenel and his committee of the Medical Society of the State of North Carolina during the 1959 Legislature to get a law making vaccination against poliomyelitis for pre-school

(Continued on page 4)

*Annual report before Conjoint Session of Medical Society of the State of North Carolina and State Board of Health, Raleigh, May 11, 1960

**Vice-President, North Carolina State Board of Health

Editorial Board Named

A widely representative Editorial Board has agreed to serve in an advisory capacity for **The Health Bulletin.**

Representative of the medical profession and some other health areas, with both local and State responsibilities, these persons will bring a breadth of interest and understanding to the publication which should make a fine contribution.

From outside the staff of the State Board of Health are two local health directors and one professor from the School of Public Health of the University of North Carolina. A plan of rotation for Board members will bring new personnel from other areas from year to year.

The personnel of the Editorial Board is listed in the masthead on page 12 in this issue. We appreciate the willingness to serve of these able persons.

J. W. R. Norton, M. D.
State Health Director

CONJOINT REPORT

(Continued from page 3)

age children mandatory:

2. The Division of Epidemiology of the State Health Department is constantly alert to changes of incidence of communicable diseases and makes a weekly compilation of reports of communicable diseases for the sake of medical and public interest, and also for national comparisons. Through such a compilation, interesting data are gathered for use by the local health director and the private practitioner, to warn of and prepare against possible approaching epidemics. In comparison with 1958, North Carolina in 1959, for instance had one thousand one hundred and ninety-nine (1,199) more cases of measles, one hundred and seventy-six (176) more cases of whooping cough, twice as much infectious hepatitis and more than seven and one-half times the number of cases of paralytic poliomyelitis (37 to 270). Fifty-six per cent (56%) of the paralytic cases were children under four years of age, and less than two in five of all recorded cases of poliomyelitis had received any Salk vaccine

Intensive investigations of all cases of typhoid, malaria, diphtheria, tularemia, brucellosis, Q fever and other infections were made. And a large number of studies relating to foodborne illnesses were conducted.

State Board Is Custodian of Reports

3. Statistical requests and consultative assistance reached an all-time high in 1959. The State Board of Health is the custodian of reports of morbidity, mortality, divorces, natality and other information for the entire State. Therefore, it assists professional and lay agencies in compiling data for research projects. At the present time, it (the State Board of Health) is cooperating with the Medical Society of the State of North Carolina through its committees, in supplying information for five research projects; namely: 1. North Carolina Survey, 2. Neonatal Death Study, 3. Maternal Health Committee, 4. Auto Crash Injury Research and 5. Anesthesia Study.

Within the past decade there has been a reversal of the trends of causes of death in North Carolina. Tuberculosis, which has heretofore been one among the ten greatest killers within this State, was responsible for only two hundred eight (208) deaths in 1959. But as the morbidity and mortality from the communicable and infectious diseases becomes less and less, the State Board of Health becomes more and more concerned with the problems of chronic and degenerative diseases such as early cancer detection, protection against cardic-vascular-renal damage and guidance to avoid mental and nervous breakdowns. We also find increased emphasis on maternal health, congenital defects, handicapped children, occupational health, improved and revised standards of sanitation, foodborne diseases and many other problems and programs that have direct influence upon the properties, industries, health, and life of the people of this State.

4. The State Board of Health, through its Occupational Health Section, serves in planned engineering and medical activities with the Department of Labor and the Industrial Commission, permitting closer coordination of health services with industrial programs. Last year, the industrial hygiene engineers inspected over three hundred (300) plants (10% more than previous year), for dusts, fumes, chemicals, vapors, ionizing radiation and other health and occupational hazards.

The Section also co-sponsored seminars on ventilation at North Carolina State College and in radiological health and industrial nursing at the University of North Carolina and was assigned the major responsibility in coordinating the radiological health program as required by law through

(Continued on page 5)

We have passed from the stage of legislating health to the stage of securing better health through better understanding.—Dr. Berwyn F. Mattison

CONJOINT REPORT

(Continued from page 4)

1959 legislation.

5. The Veterinary Medical Section of the State Board of Health is cooperating with the Department of Agriculture in investigations of diseases of animals transmissible to man. One big project for the past two years was to determine the degree of contamination in poultry processing plants with various species of salmonella organisms. In one plant, a total of thirty-two per cent (32%) of processed fowls were infected with these pathogens. The Veterinary Section continues to strengthen its program in the eradication of rabies, which has been a major health problem in several counties of the State the past year. The Department continues consultative cooperation with the Department of Agriculture in problems of mutual concern (such as meat and milk inspections) aimed at producing wholesome high quality food products of animal origin.

Accident Prevention Is Growing Program

6. Accident prevention is becoming one of North Carolina's major public health activities. In an effort to reduce death and injury from farm and home accidents, the Accident Prevention Section, State Board of Health, continues its educational program on accident prevention for public health workers, home demonstration club leaders, 4-H club groups, PTA meetings, civic clubs and other community workers.

Mental Health Becoming a Community Concern

7. Nervous and mental disorders are gradually consuming a larger portion of the private practitioner's time and making greater demands upon local health authorities each year. In 1959, eleven (11) mental health clinics held over thirty-two thousand (32,000) patient interviews. Forty-nine per cent (49%) of these patients were under eighteen years of age. The Mental Health Section also provided consultation service to schools, courts, industries, welfare departments, doctors, ministers, nurses and other groups and agencies. Mental health clinics were established in two additional county health departments, and part-time assistance was supplied to three others.

8. The State Board of Health operates under the philosophy that, following preventive efforts, early detection and correction of defects is the next step toward good health. It finds its best application of this philosophy through the Division of Oral Hygiene and through the Crippled Children's Clinics of the Personal Health Division.

(Continued on page 6)

John R. Bender, M.D.

Motor vehicle accidents take more lives annually, according to the National Safety Council, than any other major class of accident—home, public or work. According to the National Safety Council, a drinking driver is involved in 3 out of 10 fatal motor vehicle accidents.

CONJOINT REPORT

(Continued from page 5)

a. The program of dental health serves the children of elementary school age with the aim of aiding all children to learn the importance of actively seeking good dental health. A program was initiated during the past year for the collection of base line data on the dental condition of children of school age in areas which are just beginning fluoridation, and in areas where fluoridation has been in operation several years. From data thus obtained, indications are that in areas where fluoridation has been present for five years, the decay rate among children between six and twelve years, has been reduced at least forty per cent (40%). It seems unfortunate, therefore, that only thirty-one (31) towns and cities in North Carolina, and less than 800,000 of its population are fluoridating their water supplies, even though the North Carolina Dental Society, the Medical Society of the State of North Carolina and similar medical, dental and public health national organizations have endorsed fluoridation as being safe and beneficial in the lessening of dental caries.

b. The forty-five (45) Orthopedic Clinics of the Crippled Children's Section experienced a gradual increase in the patient load of each program. There was also a continual patient increase in the seven (7) Rheumatic Fever and four (4) Speech and Hearing Clinics. Even though this Section has suffered the loss of a nurse consultant in Child Growth and Development, one additional Speech and Hearing Clinic has been opened this year.

9. The Sanitary Engineering Division made a complete sanitary survey of jails and city lock-ups, and assisted the Prison Department in the inspection of highway prison camps. Sanitary inspection of nursing homes and homes for the aged continued unabated. Many of the conventional sanitation activities were expanded because of population growth and industrial development. Foodhandling regulations were revised to include sanitation standards for outdoor dining areas, and during the year special attention was given to water and sewage disposal problems in the coastal counties.

Laboratory Division Serves People of the State

10. The Laboratory Division is an institution within itself, and one which has rendered faithful, conscientions and competent service to the people of this State since its first Director began work in 1908. There were no changes in 1959 except in additional examinations. Your Laboratory Division is continually reviewing and evaluating its program and looking for newer methods and laboratory techniques to better serve the people of North Carolina, within the structure of the State Board of Health.

The Laboratory Director, Dr. John H. Hamilton, resigned April 30, after serving the State faithfully and competently for forty years—the first eleven in New Hanover County. His dedication to the field of public health has been for the citizens of North Carolina, a providential blessing beyond the realm of tangible values. Testimonials and expressions of appreciation for his services are to be conferred upon him at a later date under more appropriate circumstances. It suffices here to say that the Laboratory Division will always be, to those of us who are fortunate enough to have known Dr. Hamilton, a symbol of unselfish service and a monument to his memory.

The work and service of many other Divisions and Sections within the State Board of Health deserve commendation and should be mentioned but time does not permit.

State Health Director Alerts State to Public Health Needs

11. I would be derelict in my duty toward you on behalf of my colleagues who serve on the State Board of Health, if I failed to mention the excellent administration of the State Board of Health under Dr. J. W. Roy Norton. It is almost inconceivable that

(Continued on page 7)

PUBLIC HEALTH NURSE NAMED "WOMAN OF THE WEEK"

The *Asheville Citizen* selected Mrs. Rubye Bowles Bryson, public health nurse with the Haywood County Health Department, as the "Woman of The Week" in a recent issue. The feature article had this to say:

For 19 years Mrs. Rubye Bowles Bryson has held a full-time position as public health nurse with the Haywood County Health Department. Through it she has worked with representatives of the Haywood Medical Society to establish the first class for mentally retarded children beginning next fall. She recently assisted with the first "weight control" project—a 12-week course sponsored by the Health Department, HD Clubs and the Medical Society—which has gained recognition throughout the State, and the Expectant Parent classes held twice a year. A native of Statesville where she graduated from Mitchell College, Mrs. Bryson received her R.N. degree from Vanderbilt University School of Nursing and studied public health nursing at William and Mary College.

Many extra hours "beyond the call of duty" are devoted to civic, church and home activities.

Mrs. Bryson is past president of the Business and Professional Women's Club and Waynesville Homemakers HD Club and health chairman of the county HD Clubs. She is one of the first two women on the board of stewards of First Methodist Church where she teaches the Wesley Fellowship Adult Class.

CONJOINT REPORT

(Continued from page 6)

Dr. Norton can perform his executive and administrative duties and also engage in the many activities which he does that involve public relations on behalf of the State Board of Health and the Medical Society of the State of North Carolina. In order for North Carolina to maintain its commendable health position, it is necessary for the State Health Director to keep abreast of the developments in the field of health affairs, through the State and over the nation. This is done through wide professional reading, attendance at regional, national and international conferences and frequent visits to various sections of North Carolina. By such visits and through such professional contacts, the State Health Director is able to keep in close touch with industrial and agricultural development and to identify the approaching public health needs, and promote measures for meeting those needs.

12. Other activities of the State Board of Health are continuing unabated through the various Divisions and Sections and through our chief aim of service—the local health departments serving all one hundred (100) counties. The enlargement of programs to deal with chronic diseases and care for the aging, tops the list of North Carolina's public health needs for the year ahead.

Report May Serve as Basis For Better Understanding

Perhaps there remains in the minds of some, the editorial ideas expressed in the beginning. If so, this brief and partial summary of the activities of public health work in North Carolina has been of value, only insofar as it has fulfilled the requirements of law. If it has given to some a better understanding of the inner workings of the State Board of Health, and local health departments and serves as a basis for a more understanding attitude toward the local health departments and the State Board of Health, time will not have been in vain and this report will have served its intended purpose.

Budget Making—Some Guiding Principles*

Charles L. Harper**

At the outset, it should be made clear that program planning and budget making are so closely related that it is impossible to talk about budgeting without including concurrent program planning and development. This refers of course to the processes involved in arriving at the amount of money needed for a program, and not the mechanics of expressing amounts budgeted according to a specific format. The latter is important, however, as it relates to interpretation and guidance in actually using the budget once adopted.

If budgeting and planning are interlocked, it is reasonable to say that budgeting is not a process which is begun at a given interval prior to transmittal to the appropriating body, but is actually a year-round matter. It is true, of course, that it is assembled at a certain point approaching its review and being acted upon. Many mistakes are made, however, in giving too little thought and time to the budget, consequently, it is not a reflection of a careful analysis of public health problems and activities designed to correct or ameliorate them.

The following steps have been outlined as a guide in developing the budget. Many are taken for granted; however, each has a place in the budget processess:

I. Knowledge of Public Health Responsibility.

One may question the relevance of this to budgeting. It is important, however, to have well trained and experienced personnel employed in public health programs. If a physician, nurse, or sanitarian is employed who does not have a good concept of public health responsibility in his field, it will be impossible to design an adequate program or prepare an adequate budget. The health director cannot possibly be expected to analyze all the health problems and plan for their solution on a solo basis. This plea, therefore, is for high standards and qualification for personnel in key positions.

II. Determination of Need.

It is relatively easy to say that "I need another sanitarian, or clerk because the workload seems to be increasing." This simple statement is not convincing to the appropriating body.

A more factual and effective approach may include such considerations as:

(a) Comparisons of existing situation with nationally accepted standards.

(b) Extent to which past and current efforts in the specific area have been effective in reducing morbidity, mortality, health hazards, or controlling a recognized health problem.

These will inevitably involve an evaluation of program activities and include an analysis and interpretation of program and fiscal data, special studies, and other means of determining the degree to which a program is functioning at maximum productivity. It is more convincing to be able to say that "x number of babies are lost annually, most of whom could be saved by making available these particular health services which have been tried and proved"—and point these out in specific terms. Such collection of data for tabulation has a useful purpose in planning and budgeting — a point which is often neglected since most programs have a wealth of untapped information.

III. Program Planning.

It is impossible to adequately project the kind of public health program needed without first a critical analysis

(Continued on page 9)

*Presented at Western District Public Health Association, Asheville, N. C.

**Director of Administrative Services, N. C. State Board of Health

BUDGET-MAKING

(Continued from page 8)

of the past and current programs and expenditures. For some reason, it seems that appropriating bodies are willing to provide the same amount of money as the previous year without regard to whether the same needs exist. It is always refreshing to be able to couple a new request with the deletion of one for which the need has been satisfied. Even so, a constant evaluation, if only in informal terms, should be made to determine whether expenditures are made for activities which are the most productive.

In considering past and present programs, one must relate them to the major health problems in the community. Is there an activity geared to meet the outstanding public health needs? Are there problem areas about which nothing is being done, either because another agency has assumed this responsibility, or because this is not a popular item politically, or because there has been no public demand for such a service?

Once this stock-taking has been done, it should be possible to project the direction of program development. Often, it is helpful to establish long-range as well as immediate objectives keeping in mind that they should be reviewed periodically.

In developing program plans, it is necessary to consider how new activities will be coordinated with related functions of other agencies. For example, nursing follow-up of mentally ill patients should be coordinated with the institutional and outpatient program for the same patient. It is also important to have the full benefit of participation of everyone who will in any way be expected to contribute to the program or activity.

IV. Program Implementation.

Having decided what needs to be done, there is one other phase of planning necessary before actually seeking approval from the appropriating body—that of outside support. There is hardly any program more vital to the public but less understood than public health. Medical societies, community civic and professional groups, official and quasi-official organizations, as well as the public at large—should be given weighty consideration in any public health program undertaking because on them may rest success or failure. Many times a health director may plant the seed, but a health council or other ocmmunity group will provide the ingredients to make the program a reality.

Often public sympathy and support can be aroused only through a direct educational and mobilization effort.

V. Budget Processing.

At this point, the assumption is that prior to the compilation of figures and supporting facts considerable effort has already been expended in behalf of the budget. Perhaps the items contained in the budget request will have already been brought to the attention of those whose decision determines whether or not a program will become a reality. A major job remains to be done—that of presenting the budget and explaining its contents. Here there are several general points to be considered:

(1) The health director should be intimately familiar with the budget document and have a sound knowledge of all of the supporting data behind each request.

(2) The health director should present the budget, using a succinct but pertinent statement of justification. Key staff members actually responsibile for particular programs should be available for providing additional detail if necessary.

(3) The budget should be understandable to those giving consideration—and should be geared to specific objectives which the health officer believes is necessary to meet the health needs of the community or area concerned. There should not be

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DR. PAUL DUDLEY WHITE VISITS STATE

North Carolina doctors and their work have been interesting for the past 40 years and more to Dr. Paul Dudley White, heart specialist who cared for President Eisenhower and operated on his heart.

It was in World War I in France that Dr. White came to know Medical Unit "O" of Charlotte, N. C. attached to the Massachusetts Division near Bordeaux, France.

After the war he visited the physicians in Charlotte and since then has lectured and visited at all three medical schools in North Carolina—Duke, Wake Forest and the University of North Carolina.

On a recent visit to the University of North Carolina, Dr. White described President Eisenhower as "one of my best patients." The President is completely cooperative, said Dr. White.

The President is the kind of man who likes work, is accustomed to work and needs work—regardless of sometimes "conditions of stress" under which he must work in making many major decisions every day.

Dr. White said, "I sometimes think that stress is overstressed." He also said that work is sometimes "wrongly blamed for heart attacks."

HEALTH BULLETIN

TWINS SHOULD BE TREATED AS INDIVIDUALS

Twins, who physically may be hard to tell apart, psychologically need and seek individual recognition, according to an article in Tody's Health magazine.

"Twins struggle for an identity which, because of the very circumstances of their birth, is constantly threatened with eclipse," the article said. "Twins therefore find it necessary to assert a cherished individuality and to demand individual recognition".

There is scientific proof, the article continued, that even identical twins are not carbon copies of each other.

"They are apt to begin life at different sizes and to grow at different rates," it said. "They have different aptitudes, talents, interests, and skills."

To help twins adjust to a world that thinks of them as one rather than as two, the article said parents should:

Dress twins differently and give them different toys.

Treat them as individuals by playing up their special skills and talents.

Refer to them by their names, never "the twins".

Educate outsiders not to ask the twins, "Which one are you?"

Encourage each twin to develop his own interests.

Encourage each twin to cultivate some friends he can call his alone.

Encourage each twin to spend some time on his own away from home.

HEALTH BULLETIN

A seminar on gerontology was held June 13-24 by the Department of Public Health Education of the University of North Carolina School of Public Health.

HEALTH BULLETIN

Social drinkers can be real accident makers, the National Safety Council emphasizes. While the obvious drunk usually attracts attention to himself, the social drinker may appear normal —until his wits fail him in an emergency.

HEALTH BULLETIN

BUDGET-MAKING

(Contiued from page 9)

"hidden" activities lost in meaningless items in the budget documents.

(4) The budget should be defensible in terms of actual amounts necessary for work to be done, but be realistic in light of tax resources available.

(5) The health director should win the confidence of the appropriating body. He should satisfy himself that all of the facts have been brought out and that the decision is made with the benefit of the best possible justification.

Programs of National Sanitation Award Winners

The Indianapolis and the San Bernardino County health departments were judged winners of two top national awards for sanitation programs. The competition was open to more than 1200 local health departments throughout the country.

The Division of Public Health of Marion County, Indiana, which includes the city of Indianapolis, won the Samuel J. Crumbine award for outstanding achievement in the development of a program of eating and drinking sanitation. The Crumbine award for the development of a comprehensive program of environmental sanitation was won by the County Health Department of San Bernardino, California.

The Marion County, Indiana, Division of Public Health, was deemed outstanding for the number of special features and improvements achieved in its eating and drinking sanitation program. Notable among them were the following:

Employment of their own specialist to train sanitarians, before this service became available from the state.

Strengthening of the program for instruction of foodhandlers by training of the instructors and by offering a more complete course.

Carrying out effectively a program of obtaining chest x-rays of foodhandlers, with the removal from foodhandling of individuals found to have active tuberculosis.

Diligent and effective follow-up of violations, with activity being concentrated on sub-standard establishments rather than frequent inspections of those which had had consistently good records.

Establishment of a policy of deadlines for compliance with equipment requirements, to replace the previous system of awaiting a change in ownership.

Inspection of the food service of churches, PTA's, and other non-profit organizations on the same basis and with the same standards as are required of restaurants.

A three-week training course for all new personnel, followed by orientation

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The Health Bulletin

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CONTENTS

SANITATION AWARD WINNERS

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lectures and an intensive in-service and on-the-job training program, as well as the use of specialized training courses and seminars offered by other agencies and by industry.

The San Bernardino County program of environmental sanitation was noteworthy for the completeness of its coverage in 19 separate categories, and for the evidence of continuing re-evaluation and strengthening of each aspect of its program. Some of the accomplishments which brought the health department its awards were:

Leadership in the development of a "Guide to Establishing a Domestic Water System," which simplifies handling of the large number of land subdivisions being undertaken.

Presentation of a short course and demonstration of fly control each spring at a dairy site, and cooperation with other segments of the dairy industry in organizing further schools, an educational dinner, and yearly milk judging contests.

Instigating an effective change in the sanitation program for public eating places by lowering the maximum point score on equipment and increasing the point score under operation and maintenance in grading such establishments, to put greater emphasis on day-to-day sanitation.

Successfully urging the conversion of county disposal sites from open burning to cut-and-cover sites.

Playing an important part in the development of an efficient system of accident reporting, in which 9 hospitals in the county participate by completing a pre-coded punch card on each accident victim—an activity which is used to inform and arouse public interest in safety.

Sponsoring of swimming pool institutes, foodhandling courses in schools and outdoor sanitation classes for operators of all resort and in-group facilities.

THE HEALTH BULLETIN

The Official Publication Of The North Carolina State Board of Health

Pisgah View Ranch, Candler, N.C.

The Barn at Pisgah View Ranch, Candler, N.C.

Scene of Fifth Annual Mental Health Workshop

See Story on Page 5

July, 1960

The Health Bulletin

The official publication of the North Carolina State Board of Health, 608 Cooper Memorial Health Bldg., 225 N. McDowell St., Raleigh, N. C.—Published monthly.—Second Class Postage paid at Raleigh, N. C.—Sent free upon request.

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SAFETY ON STAY-AT-HOME VACATIONS

So you're vacationing at home this year.

Well, you're not alone in your choice—lots of folks nowadays vacation right in their own back yards.

Look at the advantages—no traffic to contend with, no tired children in the back seat, no worry about accommodations.

But you will have to be just about as cautious at home as if you were vacationing hundreds of miles away the National Safety Council says. "Your vacation at home," it says, "must be safe to be happy. It can be if you follow a few rules." For example:

1. Water's water, whether it's a distant beach or a back yard pool. Small children never should use a home pool except when supervised by an adult. (It's a good idea, by the way, for everyone to take along a partner when he goes swimming.)

2. Don't let the man of the family overdo things. Mr. Fix-It probably will try to do all the repair jobs in two weeks that have accumulated the rest of the year. Keep your man alive. Urge him to take things easy and work moderately during his vacation.

3. The fact that you're not driving to your vacation spot doesn't mean you're free of traffic danger. Most fatal crashes occur within 25 miles of the victim's home. And make sure a child isn't behind your car when you back up.

Every week on Saturday afternoon a radio broadcast sponsored by the North Carolina State Board of Health may be heard on WPTF (Raleigh—680 kc.). The program which features timely and interesting subjects in the health field is heard at 1:35 P.M.

BACK-YARD SAFETY

Here are some Council suggestions on how to make your backyard playground safer—and give you more peace of mind:

1. Allow ample space in the yard for each playground device. Crowding can cause accidents.

2. Keep debris such as broken glass and nails out of the play area. This may require a daily inspection.

3. Explain rules for safe use of the playground equipment to your youngsters—and then enforce the rules.

4. Buy swing seats of leather belting, rubber or rubberized canvas. It's hard for a child to stand on them. And if such a seat strikes a child, it can't injure him severely.

"Most important," the Council said, "check your backyard playground equipment frequently. Sliver-producing edges on the sandbox can be made smooth, for example.

"The time to stop backyard accidents is before they happen."

Community Mental Health In North Carolina*

No thoughtful person could be so rash as to outline an Utopian plan for mental health services. As knowledge advances Utopian plans are apt to be exposed as impractical schemes based on past ignorance.

There are, however, some broad program areas for mental health which are generally accepted. For example, no one would question the need for hospital facilities for the mentally ill any more than he would question the need for such facilities for other illnesses. It is interesting to observe the increasing emphasis on provision of facilities for the treatment of the mentally ill in local general hopsitals.

Another major program area is the provision of outpatient treatment facilities in local communities whether this treatment be provided by general practitioners, psychiatrists in private practice or community clinics. Of course, all are needed to adequately handle a problem of the public's health of this magnitude.

It is essential that we improve our procedures for early case finding, diagnosis and early treatment. Again this must be a shared responsibility of physicians, the schools, public health departments, welfare agencies and others.

We are just beginning to deal with problems of follow-up care for patients who have received hospital treatment. Emotional, social and vocational rehabilitation for the patients is equally important.

Prevention Is Fundamental

The prevention of mental disorders and the promotion of mental health—which may or may not be synonymous concepts—are fundamental to a sound, long range program. Certainly the types of services which have been previously outlined contribute to both prevention and promotion. In addition, we must use what we know and discover improved methods of helping individuals and families during periods of major emotional impact, such as birth, early childhood, entrance to school, adolescence, marriage and old age.

Professional consultation services by mental health personnel to such community caretakers as physicians, public health personnel, welfare personnel, school personnel, the courts and ministers must be further explored and evaluated as an aid to prevention and promotion.

Education of the public by mass communication media, in small groups and in the public schools, is obviously essential, but requires further experimentation and evaluation of both positive and negative results.

Stepping Up Research

Research, probably our weakest program area, is the basis for further knowledge and for improved services. We need more research in at least four areas: 1) classically designed and controlled research regarding the nature, causes and treatment of mental illnesses, 2) epidemiological studies of communities, 3) social action studies of communities, and 4) continuing evaluation of present programs.

In considering the major areas of the

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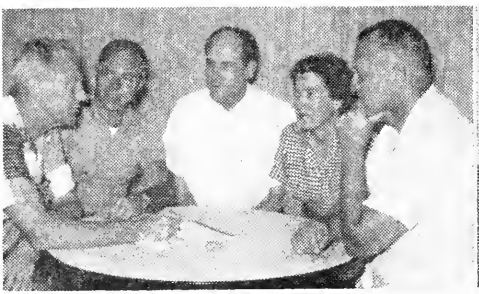
*Statement presented by Dr. Robert M. Fink, Consultant on Mental Health of the State Board of Health, to the meeting of the N. C. Association of Mental Health Clinics, Durham, July, 1960. Dr. J. W. R. Norton, State Health Director, and Dr. Fink both spoke to the Association.

"The Federal government, I think, has a real place in the field of research. It is doing a very fine job of research in the National Institute of Health in Bethesda, Maryland, just outside of the District of Columbia."—Hon. Sam J. Ervin, Jr., U. S. Senator from North Carolina, in an address to the Medical Society of the State of North Carolina.



LEADERS WRESTLE WITH MENTAL HEALTH PROBLEMS

Leaders who participated in the Fifth Annual Workshop on Community Mental Health held at Pisgah View Ranch in June. This year's representation drew personnel from across the nation—from Maine to Alabama and from Florida to California. Shown around the conference table in the picture above are (left to right): Dr. Robert M. Fink, Raleigh, Consultant in Mental Health of the sponsoring State Board of Health and Director of the Workshop; Paul M. Curtis, Raleigh, Phychiatric Social Work Supervisor of the State Board of Health; Dr. Curtis Southard, Washington, a psychiatrist and Chief of the Community Services Branch of the National Institute for Mental Health; Frances Allen of Hickory, Supervising Public Health Nurse of district health department; and W. H. Bandy, M.D., Hickory, Health Director of the District Health Department.—In the picture at the right are shown (left to right): Joseph Adlestein, M.D., Harrisburg, Pa., Director, Division of Behavioral Problems, Pennsylvania State Department of Health; Elsie Ho, R.N., M.P.H., Charlottesville, Va., Regional Mental Health Nurse Consultant, Public Health Service; and H. D. Chope, M.D., Dr. P. H., San Mateo, Calif., Clinical Professor, Preventive Medicine, Stanford University, Director, Department of Public Health and Welfare, San Mateo County.

TIMELY FILMS ON LIFE-SAVING ARE AVAILABLE

The following two films on the new method of life-saving through "mouth-to-mouth" breathing are available free from the Film Library of the State Board of Health:

"RESCUE BREATHING"—21 minutes, color—This film is designed to teach the techniques of Rescue Breathing (mouth-to-mouth and mouth-to-nose) to all ages and groups. An animation portion shows how the tongue usually blocks the throat of an unconscious victim and how a rescuer can rectify this condition to bring the half dead back to life with Rescue Breathing. A series of vivid dramatization demonstrate exactly how Rescue Breathing is used to save the lives of unconscious victims of drownings, choking, drugs, electric shock, gas, asphyxiation, and chest injury. Excellent for first-aid classes and audiences of all kinds;

"50,000 LIVES"—13 minutes, 16 mm. color-sound film—This film is presented by Johnson and Johnson and was produced with the cooperation of the Baltimore Fire Department and Department of Anesthesiology of the Baltimore City Hospitals. It stresses the fact that "your breath may save a life!" Any acident may be accompanied by asphyxia or suffocation. It has been estimated that 50,000 people die needlessly every year because of asphyxia. These lives can be saved if proper resuscitation methods are used. The film clearly shows the methods of Exhaled Air Resuscitation.

Fifth Regional Community Mental Health Workshop Held

New approaches to mental health problems in communities were brought out in an unusual Regional Workshop meeting this year for the fifth summer in Western North Carolina.

Sponsored by the N. C. State Board of Health, the Workshop sessions have brought some 250 professional persons from 31 states in this five-year period. An average of fifty persons a year spend ten days at Pisgah View Ranch near Candler and wrestle with the mental health problems which have been vexing their communities.

This year, under the direction of Dr. Robert M. Fink of the State Board of Health, the sessions were conducted June 20 to 30. Each of the four unit groups into which the Workshop participants were divided attacked one particular phase of comunity mental health.

The purpose of the workshop, as stated by Dr. Fink, is to study problems of development and coordination of a broad approach to community mental health through in-patient services, after-care and rehabilitation, out-patient services, early casefinding and diagnosis, prevention, promotion of mental health, education of the public and research.

How to get community participation and support for a Mental Health Center was the focus of discussion in one of the groups. How a single facility may meet needs for therapy and educational consultation was the theme in another group. Educating the community properly to use treatment and consultation facilities was the subject of the third group. The fourth group considered the roles of the various disciplines in mental health programs.

Outstanding leaders in public health mental health from across the Nation presented subjects for consideration at the opening general sessions each day. The Workshop participants then spent the morning and afternoon sessions wrestling with the problems and attempting to develop and expand new ideas in the field.

Subjects and speakers for the general sessions included the following: "Culture, Society and Mental Health" by Dr. Vera Rubin of New York, Cultural Anthropologist of the Research Institute for the Study of Man; "Community Power Structure" by Dr. Fink; "A Publice Health Department Assumes Its Responsibilities for Community Mental Health" by H. D. Chope, M. D., Director of Public Health and Welfare, San Mateo County, California; "Coordination of Hospital and Community Services" by James Cathell, M. D., Superintendent of Umstead Hospital at Butner; "The Place of Research in Community Mental Health Programs" by Joseph M. Margolin, Ph.D., Washington, D. C., Chief Psychologist, Mental Health Study Center, National Institute for Mental Health, and Coordinator of Conference Studies for the recent White House Conference on Children and Youth; and "Basic Philosophy, Issues and Practices in Community Mental Health" by Curtis G. Southard, M.D., Washington, D. C., Chief of the Community Services Branch of the National Institute for Mental Health.

Represented in the various groups which worked on these problems were: psychologists, public health nurses, psychiatrists, local health officers, psychiatric social workers, and others.

"The time is ripe for mental health education" the group emphasized. There needs to be constant communication between the various disciplines which are dealing with the phases of the mental health problem. The after-care program of the public health nurse was commended by the group. Through this the released patient from the mental hospital is given an added encour-

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POPULAR SEDATIVE CAUSES PROFOUND JUDGMENT ERRORS

A widely used barbiturate produces profound errors of judgment when taken in average doses, two Harvard researchers said in the Journal of the American Medical Association.

Gene M. Smith, Ph.D., and Henry G. Beecher, M.D., said "the striking judgment distortion produced by the barbiturate is particularly important from the practical standpoint.

"One can only wonder how many accidents occurring each year on the highway, in industry, in the home, and elsewhere are due in part to impairment produced by barbiturates, analeptics [stimulants], tranquilizers, and other drugs given to ambulant patients," they said.

"The widespread use of these medicaments by persons whose decisions, judgments, and behavior affect their own welfare and the welfare of others makes further quantitative assessment of the mental and behavioral effects of these agents a matter of practical importance."

The researchers studied the effects of a typical barbiturate, secobarbital, and amphetamine, a stimulant, on 15 college men swimming time trials alone and in groups of three. Each swimmer was "a highly trained athlete in midseason form who was skilled in estimating his performance time," they said.

Nevertheless, they found that swimmers given secobarbital evaluated their speed in solo trials as significantly better than usual when their performances actually were significantly slower.

All the data, they said, "clearly demonstrate that a profound impairment of judgment was produced under the solo condition; most of the data suggest that a moderate impairment of judgment was produced when the subjects swam in groups of three."

The effects of amphetamine on judgment were not conclusive, they said. However, when the subjects given amphetamine swam alone, most of them failed to recognize the improvement in their performance produced by the drug or failed to appreciate its extent.

Previous studies have shown that barbiturates and other drugs alter performance on psychomotor and mental tests, they pointed out.

Both men are associated with the Anaesthesia Laboratory of the Harvard Medical School at the Massachusetts General Hospital, Boston.

HEALTH BULLETIN

The Federal Association of Epilepsy in Washington, D. C. has never been granted a license by North Carolina's licensing agency, The State Board of Public Welfare. This Association has been requested to desist from fund solicitation in North Carolina yet continues to circulate appeals for contributions.

HEALTH BULLETIN

Following the transfer by the last Ohio Assembly of the licensing and regulation of nursing homes in the state from the Welfare Department to the Ohio Department of Health, the Department of Health has set up a classification of "Nursing Home Sanitarian" within its organization.

HEALTH BULLETIN

Fifth Regional

(Continued from page 5)

agement as he resumes his place in his community.

The mental health associations in the communities are the moving forces to encourage the establishment of mental health clinics and support mental health activities. In beginning a mental health movement in a community, the group felt the community desires in the way of service should be the focus until demands for fuller service are understood and desired.

Summer Safety

Summer safety is a subject everyone would do well to consider. Summer is a time of greater activity than any other season of the year—it is also a time when most of us engage in activities to which we are unaccustomed. We go places we have not been before. We clock more miles on our speedometers. Other persons in the thousands are out for fun and relaxation too. Summer is a time of many accidents. Human failure is the great fundamental cause of accidents, safety experts say. Whatever the other conditions, underlying them is human failure to recognize and correct hazards and take reasonable precautions. Human failure includes: excessive haste; unsafe equipment; improper care and use of equipment; lack of knowledge; and improper attitudes such as impatience, thoughtlessness, false confidence, or anger.

The State Board of Health continues its concern for the good health and safety of North Carolina's citizens in all seasons of the year. The State Board's Accident Prevention Section gives good reminders for safety. The Sanitary Engineering Division and the local health departments in all sections of the State continue their program of good sanitation for the recreation areas. the eating establishments, public beaches and swimming pools, and other areas needing supervision in the interest of good health.

Summer safety includes many areas of concern—typhoid shots, private swimming pools, bee stings, power mowers, accidental poisoning, traffic safety, and many more.

Typhoid shots should be taken by all persons who swim in surface waters—like lakes, ponds, and streams. This advice, which the State Board of Health has consistently given, is particularly true where these waters may be receiving sewage pollution.

Films Available on Water Safety

An excellent film on water safety is available through Red Cross chapters. The film is entitled "Teaching Johnny to Swim", and has been produced within the past year. This film is not currently available from the Film Library of the State Board of Health but another film entiled "I am No Fool In Water" is available. This is a Walt Disney production. Still another film that is available from the Film Library is the one entitled "Let's Be At Home In Water". These would make a fine showing for groups interested in water safety.

Private swimming pools, once reserved for millionaires, now bear price tags within the budget of many American families. Consequently, they have sold at an astounding rate. In 1950 private pools numbered about 2,500. Today that figure has multiplied more than 100 times, giving us an estimated 300,000 pool owners.

Backyard pools present a special problem because they endow uninformed home pool owners with safety responsibilities previously relegated to trained, professional pool operators and life guards. The inability of pool owners to cope with their new duties has shown up in the increase in private pool drownings.

Some Cities Regulate Private Pools

Some cities, alarmed by swimming pool hazards, have regulated pool construction and use. However, the prime accident prevention responsibility must be the pool owners'. They must voluntarily set up and enforce certain procedures and rules.

Safety experts say that pool owners should heed these precautions: 1. Constantly supervise youngsters; 2. Always empty small plastic pools; 3. Locate pool near enough to the house so you can easily keep an eye on swim-

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BLOOD PRESSURE MACHINES TERMED USELESS FOR LAYMEN

Machines purporting to measure blood pressure that are placed in grocery stores for the use of shoppers have been termed useless.

"We know nothing about the reliability of such a machine, but would doubt its usefulness," Dr. William W. Bolton wrote in Today's Health, published by the American Medical Association.

"Blood pressure changes many times a day, and an isolated reading is therefore not of much real value," he said.

"It would, of course, be useless to you unless you checked it with your physician. And it might even be misleading, depending on what range of pressure happened to be shown at the time you used the machine.

"Blood pressure in itself is informative to the physician only in relation to other findings in his examination of the patient."

HEALTH BULLETIN

SAFETY IN THE KITCHEN

The No. 1 hazard in the kitchen isn't a sharp knife or a hot burner.

"It's children," the National Safety Council says. "Children underfoot in a kitchen can cause all sorts of trouble.

"They have a habit of leaving marbles, crayons and toy trucks here and there on floors. Such objects on the kitchen floor are booby traps when Mom tries to carry a pan of hot liquid, for example, across the room. She may fall, spilling the liquid on herself or someone else."

The kitchen, the Council says, is the third most dangerous room in the house.

How can you make your kitchen safe?

1. If possible, keep children out of the kitchen. If not, teach them to stay away from cords, appliances and stoves.

2. Turn in handles of utensils on stoves.

3. Keep knives in racks—and away from children.

4. Wipe up spilled liquids immediately from the floor.

HEALTH BULLETIN

Summer Safety

(Continued from page 7)

mers; 4. Fence in the pool; 5. Mark off shallow and deep sections; 6. Always have rescue devices ready; 7. Never let anyone swim alone; 8. Be sure someone in the family has had a life-saving course and knows first aid procedure, especially artificial respiration. 9. Rule out dangerous play; 10. Don't allow hazardous objects in the pool area; 11. Sit down with your family and draw up certain safety rules for the pool's use.

Stings from bees and wasps can be as deadly as rattlesnake bites. In fact, these insects kill more Americans than snakes do. One who has serious reactions to bee stings, should, of course, see his physician.

Power mowers, especially rotaries with their powerful propeller blades, are notorious for clipping off hands, toes, and feet. More than 3,000 people are killed each year by farm work accidents, more than in any other major industry.

Accidents Fatal to State's Citizens

Two hundred and eleven residents of North Carolina lost their lives in January 1960 as the results of fatal accidents.

Motor vehicles continued to be the leading cause of accidental deaths in 1960, accounting for 98 of the 211 deaths. Home and farm accidents caused 84 deaths. All other accidents accounted for the remaining 29 deaths in January 1960.

Summer is a happy time—a healthful time. Stay alive and keep it so by staying alert to apply good safety practices for yourself and your family.

FUTURE EVENTS IN MEDICINE

September 11-14—North Carolina and South Carolina Eye, Ear, Nose, and Throat Societies' Annual Joint Meeting—Hotel King Cotton—Greensboro

September 14-16—Southern Trudeau Society and Southern Tuberculosis Society Meeting—Hotel Francis Marion, Charleston, S. C.

September 25-26—North Carolina Urological Association Annual Meeting—Greystone Inn, Roaring Gap

September 30-October 1—Symposium on Infections—University of Virginia School of Medicine, Charlottesville, Va.

October 6-8—25th Annual Meeting of the North Carolina Society for Crippled Children and Adults—Washington Duke Hotel, Durham

October 10-12—Congress on Industrial Health—Hotel Charlotte, Charlotte

HEALTH BULLETIN

WATCH FOR TICKS

The State Board of Health reminds us that tick season is here and that we might expect to see some cases of Rocky Mountain spotted fever. About thirty-five cases are recorded annually in North Carolina. About one-half of these cases are in children under ten years of age. The state health officers say that the best way to treat Rocky Mountain spotted fever is by prevention, and the best prevention is for the mother, nurse or someone to examine children frequently, after all potential exposure, for attached ticks. An attachment of at least six hours is required for disease transmission.

—TAR HEEL PRACTITIONER

HEALTH BULLETIN

William B. Waddell, a Duke University medical student, has been elected national president of the Student American Medical Association.

The University of North Carolina has been selected as the site for a national conference for the spring of 1961 on research in psychotherapy, which is the treatment of mental disease.

The meeting is sponsored by the Division of Clinical Psychology of the American Psychological Association. It is supported by a grant of $14,547 from the National Institute of Mental Health of the U. S. Public Health Service.

HEALTH BULLETIN

Despite thousands of warnings, plastic bags still are a suffocation menace to children under one year. They should be kept out of cribs, playpens, carriages—and out of children's reach, of course. Before disposing of a plastic bag, tear it up or tie it in a knot, suggests the National Safety Council.

AIR POLLUTION

"There is evidence of a relationship between air pollution levels and mortality rates from stomach and lung cancer, with allowance being made for smoking habits," says an article reviewing government aid in air pollution research. "By observing the effects of polluted air in the laboratory and on human beings over a considerable period of time, sound conclusions can be reached. We know that there are pollutants in urban air which can produce cancer in experimental animals."

(From "Conservation of Air Resources." Frank Tetzlaff, MCE, chief, Air Pollution Engineering Branch, U. S. Public Health Service. **Public Health Reports,** Vol. 75, January 1960.)

Community Mental Health

(Continued from page 3)

community mental health program, the State Board of Health accepts responsibility for supplying statewide leadership, stimulation and guidance to local communities, through the local health departments. The State Board also regards local autonomy in program decision and action as the only sound basis for developing community programs for mental health.

We have a profound interest in, but no direct responsibility except of a public educational nature, for the State mental hospitals program. Local health departments are cooperating actively in the emotional support of families of patients who are admitted to these hospitals and in the follow-up aftercare of returned patients. Nineteen local health departments are actively engaged in this program. The next General Assembly will be requested to provide funds for additional public health nurses for the expansion of this program.

Is it not time for us to examine with the health departments and community clinics the need for increased clinical services for these returning patients?

In 1949, when the State Board of Health was designated as the Mental Health Authority, there were four community clinics partially staffed and largely with part-time personnel. Today there are eleven clinics. There are thirty-eight full-time professional persons and twenty part-time. There are twenty full-time clerical persons employed. In contrast with most nearby states, there are nine fulltime psychiatrists. For the period 1954-59 the clinics doubled the number of patients seen. The past fiscal year will show a further increase.

Two Additional Clinics Needed

There are now three large areas of the State where no mental health diagnostic and treatment services are within fifty miles of the people. The next General Assembly will be requested to provide funds to aid local communities to establish two additional clinics. Additional funds will be requested to aid existing clinics to add personnel so as to expand services.

These expanded services should provide for increased consultation to other community agencies. Every clinic now provides some types of this consultation. Our reporting system has been revised for this year to aid the clinics to determine the amount of time spent in consultation services.

In addition to the mental health clinics, four local health departments employ psychologists or social workers. The former provide consultation only; the latter provide consultation services plus social work services for patients who are referred to the nearest clinic. Both of the full-time social workers spend one day per week at the nearest clinic in case conferences and for medical supervision.

We foresee that this pattern will increase rapidly. Three additional local health departments have funds for initiation of similar programs within the next few months. Additional funds will be requested for the next biennium to further this program.

Another local health department has employed a social worker who will work primarily toward elimination of the practice of placing mental patients in jails.

Staff Development Assistance Planned

During the coming years we hope to work with the mental health clinics in staff development through professional meetings. You have indicated to us your interest in this area and in the near future a committee of your representatives will be asked to meet with the State staff for the purpose of planning such meetings. While it would be natural to expect that the topics of these meetings will be chosen in terms

of the problems and interests of the community clinics, I hope and believe that the planning committee will wish to cooperate with and seek the cooperation of clinical personnel in other mental health facilities in North Carolina.

Mental education activities have been varied. Thousands of pamphlets have been distributed, hundreds of speeches have been made and personnel have met or consulted with small groups. There have been a few television and radio programs. This major area requires careful study and organized effort. At some time in the future we hope to have a mental health educator to aid all of us in the development of this phase of the program.

During this year we wish to discuss with you the advisability of a workshop for local board members.

As additional personnel is added in the clinics we hope you will set aside some time for some type of research. We should like to work with you and in cooperation with the universities and the National Institute of Mental Health in setting up research and demonstration projects.

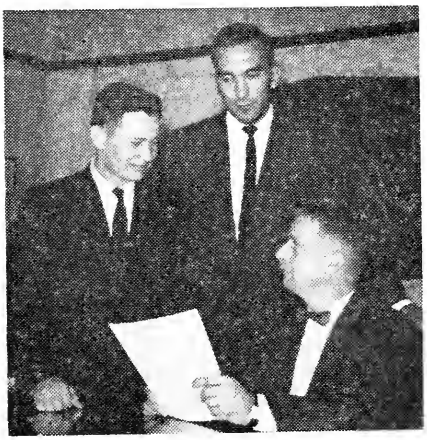
Division Status Authorized

As you know, the State Board of Health has authorized the creation of a Division of Mental Health. We have an active and outstanding applicant for the position of Director of this Division. This psychiatrist has had experience with community clinics, in State Hospitals and in public health. We are also hoping to hear favorably from a thoroughly qualified clinical psychologist. These staff members, with our present mental health consultant, our psychiatric social work supervisor and a mental health nurse whom we are seeking, will, I am sure, unite with you as all of us seek to develop throughout North Carolina a climate and an effective approach for mental health.

DATES AND EVENTS

Sept. 7-9—Annual meeting of North Carolina Public Health Association, Durham

Oct. 10-12—Occupational Health Congress sponsored by the American Medical Association, Charlotte



FIELD OBSERVANCE PROVIDED BY STATE BOARD OF HEALTH

Three weeks of field observance was provided gladly by the State Board of Health during July for two students nearing graduation from the School of Public Health of the University of North Carolina. They conferred with a score of the State Board's personnel in addition to some field trips. Shown in the picture are Jacob Koomen, Jr., M.D., Assistant Director, Division of Epidemiology, one of those who conferred with the students, and the two students Dr. Claude Murray (left) a young physician from South Carolina and William Bazemore, a young businessman originally from Charlotte.

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Cover—Courtesy of Pisgah View Ranch, from Postcards available at Gift Shop.

THE HEALTH BULLETIN

The Official Publication Of The North Carolina State Board of Health

EARL W. BRIAN, M.D.

Physician
and
Member State Board of Health

April 9, 1907—August 1, 1960

See Page 3

August, 1960

The Health Bulletin

The official publication of the North Carolina State Board of Health, 608 Cooper Memorial Health Bldg., 225 N. McDowell St., Raleigh, N. C.—Published monthly.—Second Class Postage paid at Raleigh, N. C.—Sent free upon request.

Vol. 75 August, 1960 No. 8

DATES AND EVENTS

Aug. 28 - Sept. 2—Eighth World Congress, International Society for the Welfare of Cripples, Hotel Waldorf Astoria, New York, N. Y.

Sept. 7-9 — Annual meeting of North Carolina Public Health Association, Jack Tar Hotel, Durham.

Oct. 7-8—American Medical Association Community Conference for Southeast, Dinkler Plaza Hotel, Atlanta, Ga.

Oct. 10-12 — Occupational Health Congress sponsored by the American Medical Association, Charlotte.

Nov. 18-19 — 17th Annual Meeting of the American Medical Writers' Association, Hotel Morrison, Chicago, Illinois.

Every week on Saturday afternoon a radio broadcast sponsored by the North Carolina State Board of Health may be heard on WPTF (Raleigh—680 kc.). The program which features timely and interesting subjects in the health field is heard at 1:35 P.M.

RECRUITMENT IN NURSING PROFESSION

Admission to schools of professional nursing in the calendar year 1959 were slightly ahead of 1958. New enrollments in practical nursing programs showed a larger increase. Here are the figures:

Enrollments in professional nursing schools in 1959 were 47,797 as against 47,351 in 1958. In practical nursing schools, enrollments in 1959 were 2,000 more than in 1958, 23,500 as against 21,500.

It may be well to study these figures —especially the professional school admissions—in relation to the potential pool from which these schools recruit students: the nation's high school graduates. In 1959 the estimated number of high school girl graduates rose to 935,000 from 791,000 the preceding year. But professional nursing, which for the past four years has attracted six percent of the nation's high school girl graduate pool, was chosen by only 5.1% of this potential in 1959. Does this mean that no matter what the potential, the nursing profession remains on a plateau in numbers of professional nursing admissions? Can added recruitment efforts—combined with expansion of school facilities—enable professional nursing to capitalize more effectively on the growing high school girl graduate population, which is expected to rise to 1,308,000 by 1965?

HEALTH BULLETIN

Margaret B. Dolan, professor of public health nursing at the University of North Carolina, has been elected second vice-president of the American Nurses Association.

Earl W. Brian, M.D.

April 9, 1907—August 1, 1960

Dr. Earl W. Brian, Raleigh physician and a member of the State Board of Health, died at Duke Hospital, Monday, August 1, 1960, at 2:00 a.m. after an illness of several weeks.

He had been admitted to the hospital on July 13, 1960, and had been critically ill since that time. Funeral services were held at the Edenton Street Methodist Church in Raleigh, conducted by Dr. Howard P. Powell, his pastor, and the Rev. R. H. Baum, pastor of Ebenezer Methodist Church.

A native of Arkansas, Dr. Brian received his medical degree at Duke University in 1934. He had practiced medicine in Raleigh since 1939 and was active in professional and civic life, and in the Edenton Street Methodist Church of which he was a member. He was a certified member of the American Board of Internal Medicine and had been a member of the Wake County and the Medical Society of the State of North Carolina since 1939.

In 1958, Dr. Brian was elected to membership on the State Board of Health by the Medical Society of North Carolina and served on this Board until his death.

Dr. Brian was president of the Wake County Medical Society for the year 1956-57, president of the Raleigh Kiwanis Club in 1953 and president of the Executives Club in 1958. Dr. Brian was selected as Raleigh's "Kiwanian of the Year" in 1957. He was vice-president of the United Fund of Raleigh in 1956-57. At the time of his death, he was a member of the Board of Directors of the Salvation Army and of the Occoneechee Boy Scout Council.

Dr. Brian was instrumental in the organization of the Wake County Cancer Society, was active in the Heart Association and for 17 years was a member of the board of The Wake County Tuberculosis Association.

Dr. Brian is survived by his wife, the former Blanche Barringer; two daughters, Mrs. Roy Schmichel of Southburg, Conn., and Betsy Brian of the home; a son, Earl Brian, Jr., a pre-medical student who is spending the summer in Germany; and four brothers and four sisters.

In the death of Dr. Earl W. Brian the State Board of Health has lost a valuable member. In his work on the Board he showed the same wisdom and conscientious devotion to duty that he demonstrated in his private life. He has made a real contribution to the work of this Board and will be greatly missed.

Charles R. Bugg, M. D.,
President,
State Board of Health

Dr. Earl Brian brought to the State Board of Health a wealth of training and experience in medical care, years of unselfish community service—civic, church and preventive medicine, and above all a devoted motivation and gentleness of spirit in his every word and action. Even from his brief period on the Board his influence will be projected through each of his co-workers for a long time. To know him was not only to love him but also to join hands with him in living for others.

J. W. R. Norton, M.D.,
State Health Director

1961 NATIONAL HEALTH FORUM TO MEET IN MARCH

Plans for the 1961 National Health Forum on "Better Communication for Better Health," have been announced by Granville W. Larimore, M.D., New York State Deputy Commissioner of Health, and Chairman of the 1961 Forum Committee. This will be the 9th annual National Health Forum sponsored by the National Health Council on behalf of its seventy-one member agencies.

The 1961 Forum, to be held March 13-16, at the Waldorf Astoria Hotel in New York City, will enable some 600 invited leaders in the field of health to examine together ways to improve communication for better health.

As part of the Forum, it is planned to hold three pre-Forum Workshops in various parts of the country. These pre-Forum Workshops will consider communication among the health professions, and communication between the health organization and the general public.

HEALTH BULLETIN

49th ANNUAL N.C.P.H.A. TO MEET IN DURHAM

With the theme, "Public Health Across the Board—Problems, Programs, and the Profession", the 49th annual session of the North Carolina Public Health Association will be held at Jack Tar Hotel in Durham on September 7-9.

An Annual Meeting of the Academy of Preventive Medicine and Public Health will be held on Wednesday, September 7. A night session, to which public health workers are invited, will hear Dr. Harold Graning of the United States Public Health Service.

The First General Session of the annual meeting will begin at 10 A.M. Thursday with Dr. Marvin E. Perkins of New York as speaker. An Awards Dinner Friday night will close the meeting. All sessions will be at Jack Tar Hotel.

STATEMENT ON FLUORIDATION By the California State Department of Public Health, Malcolm H. Merrill, M.D., Director

The Department of Public Health, has made a thorough study and critical evaluation of the great mass of scientific data concerning the physiological effects of fluorides on the human body and the relationship of fluorides in water to dental caries. Furthermore, the Department has investigated the effect of various amounts of fluoride in water supplies upon the dentition of thousands of school-age children.

As a result, the Department is convinced that many children now growing up in California are deprived of lifelong health protection because their elders have failed to take the necessary action to adjust the fluoride content of public water supplies to the level recommended by responsible medical, dental, and public health scientific organizations. Throughout their lives these children will suffer more tooth decay and will lose more permanent teeth than children who have the good fortune to live in communities where the water contains the optimum amount of fluoride.

Reputable scientific research has proved that the addition of fluoride to water supplies deficient in this mineral is a safe, beneficial, practical, and inexpensive public health measure.

The Department urges all people living in communities where water supplies are deficient in fluoride to take necessary action to remedy this situation as soon as possible.

HEALTH BULLETIN

Ellen Anderson of the University of North Carolina School of Medicine was named president-elect of the American Society of Medical Technologists at the annual convention of the organization in Atlantic City, N. J. in June.

Dr. Hughes Returns

We welcome Dr. John T. Hughes back to the staff of the State Board of Health. On July 1, 1960, Dr. Hughes assumed his duties as Assistant Director of the Division of Oral Hygiene.

Dr. Hughes served as a public health dentist on the staff of the Oral Hygiene Division from May, 1955, to September, 1957, at which time he was granted a leave of absence to enter the School of Public Health of The University of North Carolina. Dr. Hughes received the degree of Master of Public Health in 1958. During the past two years he has been working toward his doctorate in Public Health, specializing in the field of Dental Epidemiology.

Dr. Hughes is a native of Selma, North Carolina. He is a graduate of Wake Forest College. Following his graduation he taught for two years in the Wilson County Schools and served for two years in the Armed Forces. Dr. Hughes attended the Baltimore College of Dental Surgery from which he received the D.D.S. degree in 1947. From 1947 until entering the field of public health dentistry in 1955 Dr. Hughes engaged in the private practice of dentistry in Pittsboro, North Carolina.

Dr. Hughes (left) with Dr. E. A. Pearson, Jr., director of the Oral Hygiene Division.

Dr. and Mrs. Hughes, the former Elizabeth Disney of Baltimore, have two young sons, John Thomas, Jr. and Robert.

STUDY OF NATURAL HISTORY OF DENTAL DISEASES TO BE MADE

North Carolina to Furnish First Description Representative of Large State Population

The Division of Oral Hygiene, in cooperation with the Department of Epidemiology of the School of Public Health of the University of North Carolina, is engaged in a study of the natural history of dental diseases in North Carolina.

A stratified random sample of North Carolina households has been selected, and the study plan calls for local and State public health dentists to visit these households and to give complete dental examinations to all members of each household visited.

In addition to the dental examinations, a questionnaire will be used to obtain data regarding various biological and social characteristics of the household members.

While there is a vast amount of data in the literature on dental diseases, particularly dental caries in school-age children, very little of the data can be defended as being representative of even this small age group. Dental Epidemiology at the present can describe "life-histories" of dental conditions only by fitting together bits and pieces of data from many different sources and, even then, finds areas that are unknown.

This project is designed to make the first description of dental conditions, both normal and pathological, presented in terms of fairly standard definition and measurement, that are representative of a large State population. New

(Continued on page 10)

TABLE SHOWING TIME REQUIRED FOR KNOCKDOWN OF MOSQUITOES*

Formulation Used	Number of Mosquitoes in Cage	Distance from Machine	15 Min.		30 Min.		45 Min.		1 hour		2 hours	
			No.	%	No.	%	No.	%	No.	%	No.	%
5% DDT in Fuel Oil	19	50 ft.	6	31	16	84	18	95	19	100		
	10	100 ft.	0	0	3	30	7	70	8	80	9	90
	11	150 ft.	1	9	5	45	7	64	10	91	10	91
5% DDT in Fuel Oil with 1% Lethane 384	13	50 ft.	9	69	13	100						
	7	100 ft.	0	0	1	14	4	57	5	71	7	100
	13	150 ft.	0	0	0	0	4	31	9	70	13	100
5% DDT in Fuel Oil with 1% Lethane 384	10	50 ft.	7	70	10	100						
	10	100 ft.	6	60	10	100						
	10	150 ft.	0	0	2	20	9	90	9	90	9	90
5% DDT in Fuel Oil with 2% Lethane 384	13	50 ft.	7	54	13	100						
	10	100 ft.	7	70	10	100						
	11	150 ft.	2	18	10	91	11	100				
5% DDT in Fuel Oil with 3% Lethane 384	8	50 ft.	8	100								
	11	100 ft.	10	91	11	100						
	11	150 ft.	10	91	11	100						
5% DDT in Fuel Oil with 4% Lethane 384	10	50 ft.	10	100								
	9	100 ft.	2	22	9	100						
	12	150 ft.	3	25	12	100						

*Subsequent observations showed 100% mortality in mosquitoes that were knocked down.

SPACE SPRAY FORMULATIONS FOR MOSQUITO CONTROL

By CHARLES M. WHITE

There are three fundamental methods of mosquito control. The first, which is most effective and lasting, is the elimination of breeding places. This is accomplished in several ways, including the drainage of swamps, cleaning stagnant ditches, or destroying artificial containers, such as tin cans and discarded rubber tires that hold water. The next in order of desirablity is larviciding. In this method, mosquitoes are killed in the immature stages by applying oil or other insecticides to their breeding places. The least satisfactory, but the system most widely used in North Carolina, is adulticiding. This, as the term implies, means killing adult mosquitoes.

In the Piedmont and mountainous sections of North Carolina, as well as a large portion of the Coastal Plain, satisfactory mosquito control can be performed in most cases by drainage supplemented with larviciding. When the effectiveness of these methods is contrasted with the results obtained by adulticiding, very few municipalities in those parts of the State should choose the latter as their sole or principal method. It is much better to kill the mosquitoes before they develop into adults.

There are, however, many communities in our State that are located in the proximity of vast mosquito breeding areas which would require long range and expensive programs before complete drainage or satisfactory larviciding could be achieved. This is especially true where salt marsh mosquitoes are a problem, as these insects sometimes fly more than forty miles. Until better control methods can be financed and put into operation, they must rely mainly on adulticiding.

There are various means by which adult mosquitoes are killed, the most common being by the dispersal of insecticides as mist sprays or fogs. Several types of machines that are designed for this purpose are commercially available. This method of mosquito control merely kills or drives off the insects present at the time the spray is applied. It gives no significant lasting effect. With the best spray machines, using effective insecticides and operated in the correct manner, kills are seldom obtained at great distances.

There are numerous formulations of insecticides on the market that give desirable results when used in space spray machines, but DDT is still the basic insecticide of choice. It is cheaper than other chemicals that do a satisfactory job. North Carolina mosquitoes, unlike flies and some of our other insects, have not developed an appreciable resistance. As long as the present degree of susceptibility remains, it would be unwise to change. It has been demonstrated, however, that a higher percentage of kills at greater distances and more rapid knockdowns can be obtained by adding a small amount of Lethane 384 to the formulation. This material consists of approximately 53% B-butoxy-B'-thiocyanodiethyl ether and 47% petroleum distilate.

The following table shows the results of tests run this summer, by our staff, using 5% DDT in fogging machines to kill mosquitoes in cages. Lethane 384 was added in the concentrations shown. The wind velocity was 10-15 miles per hour.

(Continued on page 8)

*Mr. White is Chief, Insect and Rodent Control Section, Sanitary Engineering Division, N. C. State Board of Health.

The results of these tests show that the addition of 1% Lethane 384 improves the kill and rapidity of knockdown to some extent. This was particularly true when the cages were close to the fogging machine. More improvement was obtained with 2%, but increased concentrations were of very little benefit.

It is not anticipated that identical results would be obtained on additional tests run in the same area. There would probably be still more variation, if mosquitoes from a different place were used. We believe, however, that the results of these tests, and others run by us, along with information in scientific literature, indicate that 5% DDT in fuel oil with 2% Lethane added would give satisfactory kills and quick knockdown on most mosquito control projects in North Carolina. When this does not appear to be true, it is recommended that several tests be run, using local mosquitoes, in order to establish the correct formulation.

One gallon of Lethane 384, included in a fifty gallon mixture of 5% DDT and fuel oil, provides a 2% concentration.

Caution

All insecticides are poisonous, and should be so regarded at all times. The State law requires that those sold commercially be registered with the North Carolina Department of Agriculture. No insecticides should be used other than those that are properly registered and properly labeled. Chemical names, rather than the designations in common use, are usually given in the analysis. If anyone is unable to identify the component ingredients on the label, please write the author of this article and he will gladly assist. Be sure to enclose a label, or give exact and complete information printed thereon.

Space spraying must be performed in such a manner as to give the least possible exposure to human beings. When the machine goes by, people should remain indoors for a few minutes with the doors and windows closed. DO NOT ALLOW CHILDREN TO FOLLOW THE MACHINE AND PLAY IN THE FOG.

Studies

A Duke University medical scientist is approaching the study of strokes through observation of blood vessels inside the eyeball. **Dr. Albert Heyman** plans to study the retinal blood vessels by photographing them with specially adapted "eye ground" cameras, by making motion pictures and by measuring blood pressure inside these vessels.

A Duke University **medical postgraduate seminar cruise** to the Virgin Islands and Puerto Rico has been scheduled for next November. Purpose of the medical cruises is to enable physicians to combine postgraduate education with vacation travel. Lectures by Duke Medical Center faculty members are given aboard ship during the cruise.

The program will provide 30 hours of Category I, Postgraduate Education, required by the American Academy of General Practice.

"Words Fitly Spoken"

Echoes of Appreciation

This is a sample of the echoes of appreciation that continue to be heard for the spirit and service of Dr. John H. Hamilton who retired in April:

"Upon your retirement as Editor of the Health Bulletin an opportunity is afforded me to write a letter of appreciation to you for the many years of excellent service you have given to the citizens of the State of North Carolina.

"It has been my privilege to have your advice and help on many matters of public health since I began practice in North Carolina in 1935. I congratulate you upon the most successful work you have performed and I thank you for myself and on behalf of many others for your kindness, understanding, and cooperation which you have shown us so regularly."

HEALTH BULLETIN

Services To The Blind

Dear Dr. Norton:

"It is not possible to express to you the appreciation of the North Carolina State Comission for the Blind, the North Carolina State Association for the Blind and the 368 Lions Clubs for your demonstrated and concrete support of constructive measures designed to improve the general welfare of our visually impaired citizens. In the area of services to visually handicapped people, North Carolina has much to be proud of and we all are aware of the important contributions you have made to our Multiple Service Program."

—Sincerely yours,
H. A. Wood,
Executive Secretary
N. C. State Commission
for the Blind

PHYSICAL THERAPISTS COMMENDED

Clara M. Arrington, Physical Therapy Consultant of the U. S. Children's Bureau has written Dr. J. W. R. Norton, State Health Director, a word of commendation for two physical therapists from North Carolina, one a member of the staff of the State Board of Health. She says:

"At the meeting of the Public Health Section of the American Physical Therapy Association held in June, Miss Anne Parrish, Physical Therapy Consultant of your Crippled Children's Section, and Miss Margaret L. Moore, Director of Curriculm in Physical Therapy of the University of North Carolina, presented two excellent and well developed papers. This presentation, titled 'Clinical Affiliations of Student Physical Therapists in Public Health Programs', described the well-thought-out and executed plan for orientation of student physical therapists that has been developed by Miss Parrish and other members of the staff.

"Because of the increasing demand for physical therapists to work in public health programs, this presentation by Miss Parrish and Miss Moore was both timely and significant. You are to be congratulated on having physical therapists on your staff who are able to participate in these beginning educational activities.

"I anticipate that within the next few years we will see the pattern for orientation of physical therapy students, as developed by North Carolina, duplicated in other states. Your contribution to the advancement of education is greatly appreciated."

FATAL INJURIES IN COMPETITIVE SPORTS

Several million Americans participate in competitive sports, such as football, baseball, and boxing, often unmindful of the hazards involved.

Football accounted for 108 deaths in the United States during the 5-year period 1955-59, according to data issued by the American Football Coaches Association. A total of 81 sustained their injuries in activities directly associated with the game.

Fifty-one of the 81 deaths directly associated with football were among high school players.

The hazard of fatal injury in baseball is relatively small. The infrequent instances of fatal injury resulted from various mishaps: players being hit on the head with a ball while they were batting or running bases; one player was killed when his head hit the base as he was sliding "home", and another when playing as infielder was struck on the head with a batted ball during practice.

In the years 1955-59, boxing injuries took the lives of at least 12 amateur fighters and of six professionals. Most of these fatalities resulted from mishaps in actual bouts.

Occasional fatalities also occur in other competitive sports, such as basketball, skiing, and ice hockey, but there are no over-all figures either on injuries or deaths for these sports.

The incidence and severity of injuries sustained in competitive sports can be decreased by players' having proper equipment and facilities, good instruction and supervision, by adequate health examinations of athletes, and prompt medical attention to injuries.

REHABILITATION

A worldwide interchange and sharing of knowledge in the fields of rehabilitation and employment of the physically handicapped took place when the Eighth World Congress of the International Society for the Welfare of Cripples met August 28 to September 2, 1960 at the Waldorf-Astoria Hotel in New York.

Held for the first time outside Europe, the Congress evolved from plans shaped by more than 100 U. S. citizens.

More than 20 committees worked under the leadership of Harold A. Rusk, M.D., Congress president and director of the Institute of Physical Medicine and Rehabilitation at New York University Medical Center.

More than 5,500 physicians, nurses, therapists, educators, scientists, employers, industrialists, government officials and voluntary agency leaders represented more than 70 countries.

Dental Disease Study

(Continued from page 5)

knowledge of the principal dental health problems and new insight into the associations of pertinent family social variables with dental diseases will be gained from this study.

The participating public health dentists attended a seminar at The University of North Carolina School of Public Health from August 15 through August 26.

In September the dentists will begin to visit the selected households. These visits are to be coordinated with the routine assignments of the public health dentists and are an extension of their regular duties. It is estimated that, under these arrangements, the field work will require about eighteen months for completion.

Happenings in Health

Dr. Karl Menninger, world famous psychiatrist of the Menninger Clinic in Topeka, Kansas, will be the 1961 main speaker on "Recreation in Hospitals" at the 5th Southern Regional Institute of Recreation in Hospitals, to be held at the University of North Carolina next April 20, 21, and 22.

ANIMAL RABIES IN NORTH CAROLINA

Laboratory confirmed cases of animal rabies in North Carolina during the six-month period, January through June, 1960, totaled nineteen. These cases occurred in four counties—nine in Forsyth, eight in Bladen and one each in Alleghany and Ashe. Foxes and dogs were the animals in which the disease was found. The United States total in the same six-month period was 1,993.

MOVIES HELP EXPECTANT MOTHERS

A recent letter from the medical director of a clinic in the State asked that the Film Library schedule the following movies:

"Prenatal Care", "Story of Reproduction" and "Postnatal Care" for showing on specified dates.

The medical doctor adds this comment: "Again I would like to express our sincere appreciation for your wonderful cooperation over the past six years during which time we have routinely shown these movies to all our expectant mothers. I still feel that this type of education has done a tremendous amount of good for these people".

The first of three postgraduate short courses for dentists was begun at the University of North Carolina School of Dentistry in July.

88th Annual APHA Meeting

The 88th annual meeting of the American Public Health Association, scheduled for the Civic Auditorium in San Francisco, Calif., November 4, will be the largest gathering of public health specialists ever held on the West Coast.

Malcolm H. Merrill, M.D., president of the association and California's director of public health, has said that 5,000 men and women are expected to attend.

Major sessions will include an opening symposium on man and his changing environment and a closing symposium on present status and future directions of work in malignant diseases. Other features will include presentation of the highest annual awards in public health—the Albert Lasker Awards of the American Public Health Association and the Sedgwick Memorial Medal.

Areas to be covered in the program include genetics, rehabilitation, adolescent development and problems, medical care for children, accident prevention among children, lead poisoning, dental programs for children, costs of pharmaceuticals, medical care and the health department, medical group practice, service to patients in the home, occupational health service in medical care, tuberculosis eradication and mental health service in schools.

CONTENTS

THE HEALTH BULLETIN

The Official Publication Of The North Carolina State Board of Health

NORTH CAROLINA PUBLIC HEALTH ASSOCIATION PRESIDENT

Miss Grace Daniel, Salisbury, newly-elected President of the N. C. Public Health Association, is shown with (left to right) Dr. O. L. Ader, Durham County Health Officer and host to the 49th Annual State Convention; Dr. J. W. R. Norton, State Health Director; and Dr. Fred G. Pegg, Forsyth County Health Officer and immediate past president of the State Association. (Staff photo by Sparks, courtesy Durham Morning Herald).

See Pages 3 and 4

September, 1960

The Health Bulletin

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Vol. 75 September, 1960 No. 9

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Nov. 18-19—17th Annual Meeting of the American Medical Writers' Association, Hotel Morrison, Chicago, Ill.

NEW RADIO TIME

A new time has been set for the Saturday radio broadcast sponsored by the N. C. State Board of Health. This may now be heard on WPTF (Raleigh—680kc.) at 7:30 P.M. The program features timely and interesting subjects in the health field.

Publications For Recruitment In Health Fields

The following publications which are available on request, emphasize recruitment in health fields and may be secured from the organizations at the addresses given below.

"Physicians For a Growing America", Surgeon General's Consultant Group on Medical Education, 1959, U. S. Public Health Service, Washington, 25, D. C.

"Federal Support of Medical Research", Committee of Consultants on Medical Research appointed by Senator Lister Hill's Subcommittee of the Senate Committee on Appropriations, May 1960, Appr. Com. Office, Room 1235, New Senate Office Bldg., Washington 25, D. C.

"Recruiting in Summer Camps", National Association of Social Workers—Medical Social Work Section, 95 Madison Ave., New York 16, N. Y.

"Medicine as a Career", American Medical Association and Association of American Medical Colleges; AMA: 535 N. Dearborn St., Chicago 10, Ill., AAMC: 2530 Ridge Ave., Evanston, Ill.

"See Your Future in Pharmacy", American Pharmaceutical Association, 2215 Constitution Ave., Washington 6, D. C.

"Because You Like People . . .Choose A Career in Mental Health," National Association for Mental Health, 10 Columbus Circle, New York 19, N. Y.

"Many Hands and Many Skills," "The Longest Shopping List in Town", and "On the Record . . . For Your Care", American Hospital Association, 840 N. Lake Shore Dr., Chicago 11, Ill.

THE 49th ANNUAL NCPHA MEETING
A Backward Glance

With a total of 727 persons in attendance the N. C. Public Health Association met in Durham in its 49th annual session September 7-9.

The theme for the year was "Public Health Across the Board"—Programs, Problems, Profession.

Miss Grace Daniel of Salisbury was elected President for the coming year, succeeding Dr. Fred G. Pegg, Forsyth County Health Director. Miss Daniel is Consultant in Health Education for Western North Carolina, with headquarters in Salisbury. Other officers elected at this session include Dr. Benjamin M. Drake of Gaston County, President-elect; Mr. Robert Brown of Asheville, Secretary; and Mrs. Corrina Sutton of Raleigh, Treasurer; and Mrs. Pearl Camstra, Raleigh, and Miss Eva Thomas, Richmond County, executive committee members at large. Greensboro was selected as the site of the convention next year.

Awards made in recognition of outstanding health work during the past year were as follows:

Dr. Jacob Koomen, Jr., Assistant Director of the Division of Epidemiology at the State Board of Health, received the Carl V. Reynolds award for outstanding service in the field of public health, given for his contributions in the fight against communicable diseases in the State;

Robert W. Brown, Chief of the Committee on Environmental Hygiene of the Buncombe County Board of Health, was named "Sanitarian of the Year" for his contribution toward remedying sanitary deficiencies in that county;

Efforts by the Seroptimist Club and the Senior Woman's Club in Hendersonville to raise $80,000 toward the construction of Henderson County's new health center were recognized when these clubs received the award for outstanding mobilization of civic clubs and private citizens in the interest of public health;

A posthumous award was made on behalf of Mrs. Ruth Gordon Hay as outstanding public health nurse of the year;

The association's annual scholarship award was made to Mrs. Maude K. Eaker, a student at the University of North Carolina School of Public Health; Dr. Fred G. Pegg, retiring President, received a wrist watch in recognition of his leadership of the association during the past year.

Receiving awards for 25 years of public service were the following:

Mrs. Erroll Moore, Secretary, (now retired) Halifax County; Mrs. Hannah H. Brown, Nurse, Pitt County; Mrs. Carrie Cooper, Nurse, Durham County; Mrs. Ruby Reister, Nurse, Buncombe County; Miss Hazeline D. Umstead, Secretary, Durham County; Mrs. Sophronia Wilkerson, Nurse, Robeson County.

QUOTES FROM THE NCPHA ANNUAL MEETING

"The greatest need of the Public Health Service in this country today is that of having definite goals."—**Dr. Fred G. Pegg**

"You may count on a substantial increase in State support of the public health program during the next four years."—**Terry Sanford**

"Since the introduction of vaccination, the problem of overcoming opposition emotionally rooted in fears, prejudice, apathy, superstitution and ignorance has been encountered by the medical and public health professions when new discoveries have had to be applied."—**Dr. Marvin B. Perkins**

Ideas Into Action

IN his Presidential Address to the 1960 Annual Meeting of the North Carolina Public Health Association, Dr. Fred G. Pegg recalled the inspiring statement of the late Dr. M. J. Rosenau—"When young men have vision, the dreams of old men come true". As I noted the splendid attendance at our Annual Meeting, listened to the reports of our active committees, and examined the many programs being presented, I thought that our association is truly a dream come true.

How fortunate we are today that the young men in the early 1900's had the vision to see that an organization of public health workers could accelerate the work of protecting and promoting the public health. We are indebted to the late Dr. L. N. Glenn of Gaston County and Dr. Richard H. Lewis of the State Board of Health for presenting the idea of an association in 1909. We are indebted to that magnificent man of many talents, Dr. Watson S. Rankin, for putting this idea into action and forming the North Carolina Health Officers' Association in 1911.

Under the dedicated leadership of many intervening presidents, our organization has grown in membership and concepts, always with the same objective, "to protect and promote the public health of the citizens of North Carolina".

May we continue our work of making the dreams of old men come true and may we give opportunities to the young men and women of vision who can lead us to the full potential of public health.

Grace Daniel, President
N. C. Public Health Association

PORTER OF DUKE ACCEPTS INTERNATIONAL POSITION

F. Ross Porter, Director of the Duke Medical Center Foundation, has resigned to accept a position as Hospital Advisor with the International Cooperation Administration.

He will begin his first assignment in Bogota, Colombia, early next year after several months of orientation and other preparation. His duties will be to work with the ICA and the Colombian government in developing a national pattern for improvement of hospital and health services in Colombia.

After completing thirty years of service at the Duke University Medical Center, he became Superintendent in 1949 and held this position until he was named Director of the Duke Medical Center Foundation in July, 1958.

Marriages Increase In 1959

The number of marriages in the United States increased 2.7 percent in 1959, reversing the downtrend of the preceding two years.

Most states reported more marriages in 1959 than the year before. The upswing was most marked in Alabama and Arkansas, where marriages rose by 25 percent and 19 percent, respectively. In Florida marriages rose for the seventh consecutive year, the gain for 1959 over 1958 amounting to about 12 percent; the increase was almost as large in North Carolina.

Our Salute, Too

Miss Louise G. Bailey, whose varied activities at the Mount Airy office of the Surry County Health Department extend far from the duties usually associated with the unassuming title of secretary and could easily come under the unqualified heading of chief cook and bottle washer par excellence, was honored by that staff Wednesday morning of last week when she was presented a gift of silver on the completion of her silver anniversary with that department.

A gift of silver to a lady of sterling quality seems to this editorial writer, who has known and highly respected Miss Bailey for well over 12 years, signally appropriate. And the comment of Dr. R. B. C. Franklin, Surry County Health Officer, that during the past 25 years the Health Department has had the best secretary in North Carolina, is no idle comment.

Miss Bailey has been a loyal and devoted part of the health department in her 25 years of service. Certainly taking nothing from the long hours and fruitful activity of such health officers as Dr. Franklin and Dr. Ralph Sykes who have served during Miss Bailey's 25 years, we nevertheless feel that an equal amount of credit for the smooth-running organization that is the Surry County Health Department goes to Louise Bailey.

In a tribute to her co-worker last week, Miss Bernice Harris, nurse at the department, quoted Shakespeare, who once said: "All the world's a stage and all the men and women merely players, and one man in his time plays many parts." Louise Bailey's stage has been the Surry County Health Department since 1935, and she has played many parts on that stage, as the staff and many thousands of the residents of this county can attest. All those parts have been for the good of the public and the health department.

To be able to smile and retain a sense of humor after putting up with the problems of many of Surry's sick, lame and lazy for a quarter of a century is no mean accomplishment in itself. And to make the announcement that "I am good for 25 more years" speaks well for devotion to duty and love of her job.

You know, knowing Louise Bailey as well as we do, we have little doubt but that she can do it, too.

—Editorial, August 19, 1960, issue of Mount Airy Times.

Ten Rules For Cataract Patients

Ten rules for persons who have had cataracts removed from their eyes are offered by a physician who has undergone the surgery.

James M. Mackintosh, M.D., director of education and training for the World Health Organization, Geneva, Switzerland, outlined them in Hospitals, Journal of the American Hospital Association.

Dr. Mackintosh's rules are:

—Leave your glasses where you can find them easily. This applies especially to the bedside at night.

—Keep a spare pair of glasses in a well-marked place known to wife, secretary, and self.

—On entering a room, survey the scene quickly to detect hidden perils like footstools, low chair, small children lying on the floor, and other tripping hazards near the ground.

—Look around the room to see who is there or you may completely miss one of its inhabitants.

—Before getting up, make another quick survey in case someone has placed a drink on a table below your level of vision.

—When walking and you meet someone you know, turn your head rapidly from right to left to make sure that he is not accompanied.

—In traffic always look several times to left and right before crossing.

—Avoid occupations that require a great deal of bending, such as gardening, automobile repairs, and lifting heavy articles.

—Don't try to read too long at one time. A half-hour spell, followed by a rest of 10 minutes, is generally enough. The rest period must not be filled with other eye-straining activities such as television or sewing.

—Avoid contemplating rapidly moving objects, such as movies or swiftly moving games, if this gives a sense of strain.

AMERICAN PUBLIC HEALTH ASSOCIATION PLANS AMBITIOUS SAN FRANCISCO MEETING

First West Coast Meeting Since 1951 Will Be Held October 31-November 4.

Program plans for the American Public Health Association's 88th annual meeting in San Francisco called for reports on progress in solving many of the major health problems facing mankind. Among principal topics are Radiological Health, Health Effects of Food Additions, and Genetic and Environmental Aspects of Public Health. Several sessions will be devoted to a thorough discussion of medical care plans and programs.

Some 60 related organizations will hold meetings during the week. Two simultaneous symposia will deal with man and his changing environment.

Other general sessions will feature presentation of the highest awards in public health. Scientific sessions and scientific and technical exhibits are scheduled during the week. Nearly 400 scientific papers on a variety of health subjects will be presented on the program.

The American Public Health Association, with its 13,000 members, is the largest professional organization of Public Health Workers in the Western Hemisphere. Its membership includes physicians, dentists, nurses, veterinarians, engineers, sanitarians, statisticians, nutritionists, entomologists, biologists, health educators and other specialists in governmental and voluntary agencies and in private practice.

PUBLIC HEALTH NURSES ATTEND NURSING COURSES

These three Public Health Nurses, recipients of scholarships from the Coastal Plains Heart Association, attended the cardio - vascular diseases section of the Special Fields in Public Health Nursing Courses sponsored this summer by the School of Public Health of the University of North Carolina. Left to right they are, Mrs. W. G. Joyner and Myrtle Gulley of the Nash County Health Department and Mrs. E. L. Bond of the Halifax County Health Department.

Occupational Health Is Public Health

This is a summary of an article, "The 'How' of an Industrial Gynecologic Survey," by Mac Roy Gasque, M.D., et al, which appeared in the Journal of Occupational Medicine, Vol. 2, 214-218 (May) 1960:

The article described the adminstrative and procedural aspects of an industrial gynecologic survey in a North Carolina program. A three-year experience supports the idea that it is practical and economical to integrate a gynecologic survey into an industrial medical program. The ready availability of examinations in an industrial setting brings many women (25%) into such a survey who otherwise would allow gynecologic neglect to become protracted. While the intervals found since last gynecologic examination were less than two years in 52 percent, they were 2-5 years in 23 percent, and more than 5 years in 25 percent.

Careful advance planning contributed to smooth operation. Assembly-line techniques were necessary to achieve volume, but a prevailing climate of warmth and personal interest added to employee acceptance. The article emphasized that women working in close proximity often discuss their experiences, and as a consequence examining techniques and routines should be uniform. It was pointed out that an orderly and persistent follow-up may be necessary in order to consummate referrals.

The frequency rate of abnormalities justifies annual examinations.

The described survey received grateful employee acceptance. The diagnostic yield was abundant. Additional dividends were achieved in terms of increased employee participation in the over-all industrial health program. Management has recognized the contribution to general female employee morale. Professional relationships with physicians in the community were strengthened. Local doctors have come to regard the gynecologic examining service as a contribution to community health as well as a case-finding system which has been beneficial to their private practice.

Abnormalities of a degree requiring therapy or additional study were encountered at a relatively uniform rate, with approximately one-fourth of the patients being referred to outside medical agencies. Asymptomatic malignant conditions were found in four of the patients examined. All of these women have received indicated therapy, and all have returned to their jobs and to their families.

(Dr. Gasque's address is Olin Mathieson Chemical Corporation, Pisgah Forest, N. C.)

Happenings In Health

High speed dental drill equipment has replaced the slower speed dental instruments in many dental offices. This high speed equipment is being used in the instruction of students at the University of North Carolina School of Dentistry.

The old speed of dental instruments ranged between 3,000 and 5,000 revolutions per minute whereas the high speed instruments have speeds in excess of 200,000 revolutions per minute. There is still use for the slower speed in some types of work, we are told, but the high speed instruments cause less discomfort in the majority of cases.

Mrs. Maude Eaker has been awarded the North Carolina Public Health Association Scholarship for 1960-61. She is presently on leave from the Gaston County Health Department and is working toward her degree in Public Health Nursing at the University of North Carolina School of Public Health.

Helen Carolyn Martin of High Point, and **Judy Anne Johnson** of Burlington, were awarded Burlington Industries Scholarships to the School of Nursing at the University of North Carolina. These scholarships are part of eight valued at $50.00 each which are provided by Burlington Industries.

Dr. Kendall Owen Smith, who "has made significant contributions to the knowledge of how viruses invade living tissue cells" in research utilizing a powerful electron microscope at the University of North Carolina School of Medicine, has accepted a position at the School of Medicine of Baylor University in Houston, Texas.

PENNSYLVANIA SEEKS HEALTH BUDGET INFORMATION

Four staff members in Pennsylvania State government spent several days in Raleigh last month to gain information concerning methods in use by the State Board of Health for handling Federal Health grants and State funds in the operation of health programs. North Carolina's methods were selected for study at the suggestion of officials of the U. S. Department of Health, Education and Welfare. Shown around the table, left to right, are: Pennsylvania staff—D. G. Wise, assistant comptroller of the Health Department; Elliott Falk, Director of Accounts in the Governor's Office; Frederick Kinsinger of the Governor's Office; Paul O'Lenick, Budget Officer of the Health Department; and, from the North Carolina State Board of Health, — William K. Parrish, Budget Officer; and Charles L. Harper, Director of Administrative Services.

"EARLY MARRIAGES TO BE CONFERENCE THEME

"Early Marriages . . . Problem or Challenge" will be the theme for the Thirteenth Annual Conference of the N. C. Family Life Council to be held in the Market Street Methodist Church at Greensboro October 30-November 1.

Sessions will be open to the interested public, according to a statement by Jesse H. Lanning of Linwood, president of the Council. Dr. Irwin V. Sperry of The Woman's College at Greensboro is program chairman for the meeting.

Featured speakers for the three-day meeting include Bishop Hazen G. Werner of Ohio and Dr. Reuben Hill of Minnesota, formerly of the University of North Carolina.

Precautions Against Hepatitis Are Urged

As Schools Reopen—A Reminder from Durham County

By Wilson Morgan

THOUSANDS of children are returning to school in Durham County this month and Dr. O. L. Ader, Durham County Health Director, warned parents to take precautions against infectious hepatitis, a liver disease which has shown a sharp rise throughout both the state and nation.

Although only two cases of the disease have been reported in Durham County so far this year, Dr. Ader's warning followed in the wake of a similar warning sent to all county health departments by Dr. J. W. Roy Norton, State Health Director.

In his letter, Dr. Norton noted that the 193 cases already reported throughout North Carolina thus far this year are 4½ times last year's total of 41 cases. This, he added, is a close parallel to the increase in the incidence of the disease reported throughout the county.

The practice of good personal hygiene by school children is the best safeguard against the disease, Dr. Ader explained, and urged parents to encourage such practice.

Some of the local health director's suggestions included: seeing that children washed their hands after returning from school before eating, as well as after each visit to the toilet; restraining a child from handling food that others are to eat; and avoiding the use of common drinking receptacles and towels.

Infectious hepatitis is a virus disease that enters the body through the mouth, Dr. Ader explained. The virus disrupts the function of the liver in its role of aiding in digestion, extracting sugar and as a de-toxicating agent for the body. Symptoms include a loss of appetite, an abrupt onset of fever, nausea and discomfort in the abdomen.

Although the disease generally seems to follow a six-year cycle in its outbreaks, it usually is more common in the fall and winter of the year. The last peak in North Carolina was in 1954, with the lightest incidence in 1957.

Infectious hepatitis most frequently is found among young persons. Most of the cases reported in this state this year have been among the 5-19 age group, according to a recent report. Although the incidence of the disease currently is high, its mortality rate is low—only one-half of one per cent of all cases.

"There is no need for alarm about the disease in Durham County," Dr. Ader said. "It has been nearly 10 years since we had any serious outbreak here. Furthermore, gamma globulin (a protein fraction extracted from blood) has been found to be very effective in combatting the disease.

"On the other hand," Dr. Ader added, "we must not become complacent or indifferent about this disease just because so little of it has been reported locally, for it definitely is highly prevalent elsewhere. If parents will just do their share in promoting good personal hygiene among their children, we should be able to hold the disease to a minimum here as we have in the past.

—Reprinted from August 24, 1960, issue of the Durham Sun, Durham, N. C.

Dr. Anderson Joins State Staff

Dr. Ursula M. Anderson of New Haven, Conn., has been named Consultant Pediatrician in the Maternal-Child Health Section of the State Board of Health, according to an announcement by Dr. J. W. R. Norton, State Health Director.

Dr. Anderson has been a Clinical Fellow in Pediatric Cardiology at Yale University and has served as Assistant Pediatrician in the Grace New Haven Hospital.

A native of Cheshire, England, Dr. Anderson was graduated from the Medical School of Liverpool University. She is a member of the Royal College of Surgeons and a licentiate of the Royal College of Physicians.

Dr. Anderson has received the Diploma in Public Health from Liverpool University which corresponds to the American degree of Master of Public Health. She also has England's equivalent of the American Board of Pediatrics. Dr. Anderson has done special studies in the ascertainment and management of handicapped children with particular emphasis on mentally retarded children.

Six year research project aimed at producing better nurses has been initiated at Duke University. The study, being conducted jointly by the University's Department of Sociology and Anthropology and the School of Nursing, is supported by grants from the U. S. Public Health Service. Dr. John C. McKinney is principle investigator for the project.

Study of Continued Patient Care

A study aimed at the establishment of an Institute on Continued Patient Care has been launched at the Duke University Medical Center. Currently being evaluated by State public health officials, welfare leaders and others, the proposed institute would provide an educational program for workers in various health fields.

Purpose of the program would be to mobilize and coordinate health services that are available to patients after their discharge from hospitals.

In addition to local physicians, health personnel such as nurses, physical therapists, welfare workers and vocational rehabilitation counselors play important roles in the home care of a patient after he leaves the hospital.

Scientific Paper Awards Offered

Southeastern Surgical Congress announces the prize scientific paper award contest eligible to residents of approved hospitals in the southeastern states for the best scientific papers.

Papers are due at the Congress office at 340 Boulevard N. E., Atlanta 12, Georgia before December 1, 1960.

The prize for the first prize winner is an all-expense paid trip to the meeting at Miami Beach, Florida, March 6-9, 1961, plus a cash award.

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THE HEALTH BULLETIN

The Official Publication Of The North Carolina State Board of Health

NEW STATE BOARD MEMBER SWORN IN

Associate Justice William H. Bobbitt is shown administering the oath of office October 6, 1960 to Dr. Oscar S. Goodwin of Apex who was elected to membership on the State Board of Health by the Medical Society of the State of North Carolina. Dr. Goodwin will serve until 1963 in the place of Dr. Earl W. Brian of Raleigh. Prior to the administration of the oath of office Dr. Charles R. Bugg, President of the State Board, expressed pleasure over the appointment of Dr. Goodwin as follows: "Personally, and I am speaking for the Board, I am greatly pleased that Dr. Goodwin has been elected by the Medical Society of the State of North Carolina. He is going to make us a very valuable member. He has been practicing medicine for many years right down at the ground roots."

October, 1960

The Health Bulletin

The official publication of the North Carolina State Board of Health, 608 Cooper Memorial Health Bldg., 225 N. McDowell St., Raleigh, N. C.—Published monthly.—Second Class Postage paid at Raleigh, N. C.—Sent free upon request.

Vol. 75 October, 1960 No. 10

DATES AND EVENTS

Nov. 3-4—N. C. Dietetic Association, Asheville.

Nov. 10-12—N. C. Home Economics Association, Charlotte.

Nov. 17-19—National Association for Mental Health Annual Meeting, Denver Hilton Hotel, Denver, Colo.

Nov. 18-19—17th Annual Meeting of the American Medical Writers' Association, Hotel Morrison, Chicago, Illinois.

Dec. 2—American Congress on Physical Medicine and Rehabilitation, Washington, D. C.

Dec. 5-6—National Social Welfare Assembly Annual Meeting, New York.

Jan. 9-13—1961 White House Conference on Aging, Washington, D. C.

Mar. 13-16—National Health Council, Forum and Annual Meeting, New York.

Apr. 30-May 6—Mental Health Week.

CONTENTS

Correction—Through error reference to the award made at the NCPHA annual meeting to Miss Ruth W. Hay as Outstanding Public Health Nurse of the Year was not properly stated in the account carried in the September issue of the Health Bulletin. Miss Hay is an esteemed member of the faculty of the School of Public Health and has a wide circle of friends, several of whom called this error to the attention of the Editor. We regret it.

A YOUNG VISITOR

When Mrs. Lynne Smith, formerly of the Public Relations Office, came back to the office of the State Board of Health for a brief visit recently she brought her eight week old baby girl, little Miss Ruth Elizabeth Smith. Seen admiring the attractive young visitor, are: (left) HenreEtta Owen of the Sanitary Engineering Division, and Mrs. Annie B. Edwards of Dr. Norton's office.

Congress On Occupational Health Meets In Charlotte

National Meeting Sponsored by American Medical Association is Well Attended

By W. L. Wilson, M.D., M.P.H.
Chief, Occupational Health Section, State Board of Health

North Carolina can take pride in the excellence of the Congress on Industrial Health, sponsored annually by the American Medical Association and convened this year at Charlotte, 10-12 October, 1960. Seldom it is that an annual professional meeting holds the absorbed interest of registrants like this Congress did. There was good enough reason for its success.

Among the generally excellent events of the entire program a few were outstanding. These were presented well as subjects not commonly included in previous Congresses. The objective of the total program was to explore problems, and their solutions, in furnishing occupational health to agricultural workers and small employee groups in industry. In this meeting there was more excellence in review of the problems we find everywhere than in any sound proposals for the feasible solutions of the problems. However, knowledgeable conferees would expect this to be true.

Of historical superiority was a masterly review of North Carolina's problems in occupational medicine presented by the State Medical Society's President, Doctor Amos N. Johnson.

From administrative, educational, and research viewpoints Doctor Franklin H. Top of Iowa discussed Occupational Health in Agriculture, while emphasizing that his assignment did not call for presentation of those functional organizations and activities so esential to providing adequate services. He stressed health department and personal physicians' responsibilities, while recognizing the significance of the agricultural agencies which farmers and farm workers seek, and follow, for advice, counsel, demonstration.

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LEADERS IN NATIONAL OCCUPATIONAL HEALTH CONGRESS

National leaders in medicine as well as in industry appeared on the three-day program of the Congress on Occupational Health held in Charlotte in October under the sponsorship nationally of the American Medical Association. Medical leaders shown in the picture include (left to right): William P. Shepard, M.D., Vice-president of the Metropolitan Life Insurance Company and Chairman of the American Medical Association's Council on Occupational Health; Ernest Franklin, M.D., President of the host society, the Mecklenburg County Medical Society; E. Vincent Askey, M.D., of Los Angeles, President of the American Medical Association; and J. P. Price, M.D., Chairman of the Board of Trustees of the American Medical Association.

Congress

(Continued from page 3)

Technical aspects of physicians' services, required for agricultural workers, were unusually well covered by Doctor Wayland J. Hayes, Savannah, on Diagnostic Problems in Toxicology, and by Doctor Donald J. Birmingham, Cincinnati, on Problems in Dermatitis in Farm and Industry.

Lack of detailed mention here of the other participants, who presented older subjects, should not be interpreted as detracting in any way from their valuable contributions.

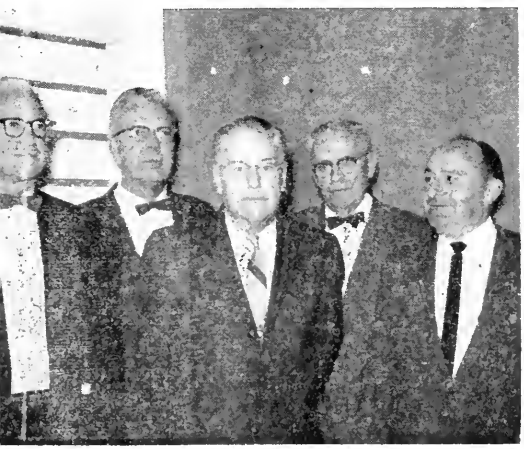
Two important North Carolina groups held significant meetings while at Charlotte. The Chairmen of County Medical Societies' Committees on Occupational Health held a dinner session to confer with Doctor Harry L. Johnson, Chairman of the State Society's Committee, upon their actual and potential contributions from private practice, and measures the Societies can undertake for the purpose. Doctor C. T. Wilkinson of Wake Forest presented a fine outline of suggested guidance.

Local Health Directors attended a luncheon session convened by the State Health Director, where they heard Mr. Fred Henderson, Chairman of the Governor's Council on Occupational Health, outline simply and effectively the important parts management looks to health departments to contribute for adequate occupational health.

Just prior to the Congress, the State Board of Health sponsored a Workshop for Industrial Nurses on Health Counselling and Education, attended by more than 30 nurses. Miss Mary Louise Brown, Associate Professor at Yale University, was consultant to and leader of the program.

NORTH CAROLINA LEADERS IN OCCUPATIONAL HEALTH

Many North Carolinians attended sessions of the 20th Annual Congress on Occupational Health held in Charlotte in October. During the Congress a special luncheon was held for Local Health Directors. The principal speaker was Fred E. Henderson, Winston-Salem, Assistant Vice President of the Western Electric Company, Inc., and Chairman of the Governor's Occupational Health Council. Seen in the picture with Mr. Henderson are other outstanding guests for the luncheon occasion. Left to right, these are: J. W. R. Norton, M.D., State Health Director; Amos N. Johnson, M.D., President of the Medical Society of the State of North Carolina; Mr. Henderson; Harry L. Johnson, M.D., Chairman of the Committee on Occupational Health of the Medical Society; and William L. Wilson, M.D., Chief of the Occupational Health Section of the State.



The new time for the Radio Program of the State Board of Health over WPTF, Raleigh, is 7:30 P.M. on Saturdays.

Staffing America's Health Services: The National Need and the Local Job

by Philip E. Ryan, Executive Director, National Health Council

ARE grim days ahead for the nation's health services? Or are the 1960's going to be a "golden decade" of unprecedented health progress? Both of these predictions are being made by responsible health leaders—and either, or both, could turn out to be true.

The outlook is mixed because the direction of coming change depends largely on how we meet the health manpower challenge—and this challenge itself is a mixture of promise and problems: promise, because career opportunities in health were never greater; problems, because too many of these opportunities will go begging unless health can recruit the many kinds of people it needs, and enough of them.

Meeting this challenge is a tremendous job—too big to be tackled piecemeal, agency by agency or even state by state. But the challenge can be met, provided all the agencies and individuals involved join forces. The National Health Council's Health Careers Program has already demonstrated that this kind of concerted attack is feasible —and gets results.

The Health Careers Partnership—Designed to underpin the individual recruitment efforts of all the health disciplines, the Health Careers Program covers occupations and professions throughout the health field. (More than 150 are represented in the Health Careers Guidebook and a number of new careers are already well on their way.) To bring information about these career opportunities within reach of the nation's teen-age young people, the Guidebook and other Health Career materials have gone to all the nation's high schools and to other places where young people seek career information. This nationwide coverage and, in fact, the nationwide growth of the entire Program have been possible only through the endorsement and cooperation of many organizations, in and out of the health field.

Depending on ties of common conviction and purpose rather than on structural relationships, the Health Careers Program has brought together a broad alliance. By now, hundreds of agencies and literally thousands of professional people and other national, state, and local leaders are represented in one or another of the components which together make up the overall partnership.

— The Commission on Health Careers: Established by the National Health Council to represent the public interest in all aspects of the health manpower problem, its 20-odd members provide perspective and guidance reflecting their leadership in many fields.

— Participating National Agencies: Around 100 all told, these include major national organizations in the health field—professional, voluntary, and governmental—together with their counterparts in such related fields as education, counseling, science, and civic affairs. This national-agency group started the Health Careers ball rolling and their increasing cooperation gives it cumulative momentum.

— State and Local Health Career Committees: By now some 600 of these groups are operating their own programs. Ambitious or modest, new or well established, these local-action groups are engaged in a key job—creating a person-to-person link with in-

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Staffing

(Continued from page 5)

dividual students, their parents, teachers, and counselors.

Promoting Community Action on a Nationwide Scale—Through Commission-sponsored conferences (for example, the two-day national-agency meetings on recruitment held in 1958 and 1959) and through Commission sub-committees, people who in one way or another are directly involved in the Health Careers Program have opportunities to share experience and to team up on cooperative projects. To further these close working relationships, national agencies, in increasing numbers, have designated staff people to work regularly with the Commission and with NHC's Health Careers staff. In this and other ways they are gearing their own health career activities into the national program.

The participation of national-agency affiliates in state and local committees is another major line of cooperation—as evidenced in a recent survey: Though covering only about a third (200) of the committees, this cross-section inquiry identifies as health career participants more than 2400 affiliates of 107 national agencies.

In North Carolina, for example, there must be something like 50 of these affiliates associated with either the Health Careers Committee of the state Health Council, or the Health Careers Program for Western North Carolina, or the Recuritment Program of the Auxiliary to the North Carolina Medical Society.

As one further finding, this survey shows that, in each of the 46 states covered, the state health department also takes part in health careers. This official-agency cooperation follows a precedent which the North Carolina Board of Health had a hand in starting—it was one of the very first state agencies to extend an official welcome to the national Health Career Program.

The growth of health career committees, plus the stepping up of high school counseling and science programs under the National Defense Education Act, has increased the demand for information and materials. Keeping pace with these needs, the Health Careers Program continues to expand its distribution. Principal items include the Health Careers Guidebook, the Health Careers Exchange, posters, fliers, exhibit material, activities round-up, and a listing of recruitment films. In process are additional materials—for ex-

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INFORMAL SCENE AT CHARLOTTE

Interesting exhibits and a Reception given by the Medical Society of Mecklenburg County were among the informal settings and occasions during the Occupational Health Congress held in Charlotte. Seen in a scene in the exhibit area are: (left to right) Ernest W. Franklin, M.D., President of the Medical Society of Mecklenburg County which was host to the Congress; Mrs. Maribelle G. Scoggin, Executive Director of Heart Services of Charlotte and Mecklenburg County and Chairman of the Committee on Local Arrangements for the Congress; and Edward J. Dowd, Jr., Executive Director of Central Piedmont Industries.

HEALTH PERSONNEL NEEDS IN NORTH CAROLINA

By William P. Richardson, M.D., M.P.H., Professor of Preventive Medicine, University of North Carolina School of Medicine

The interest of North Carolinians in the problem of medical and related personnel to meet the state's health needs, and their determination to do something about it, were amply demonstrated by the Good Health movement of the 1940's. The construction program for community hospitals, the expanded medical school, the new nursing and dental schools and the programs for education of other professional workers have begun to be felt in the greater availability and higher quality of medical and health care, but serious shortages still exist, and population growth absorbs much of the increased output of doctors, nurses and other workers.

There are many pitfalls in trying to express inadequacies in health personnel in numerical terms. The number of physicians needed for a given population, for example, is influenced by the way services are organized and where they are delivered, by the extent to which less highly trained personnel are used for the tasks they can perform, by demand and ability to pay for services, and by scientific discoveries which may increase or decrease the time and effort required for a particular health problem. Nevertheless, comparisons of ratios of personnel to population with national averages and with ratios of other states do provide general if imperfect indicators of our inadequacies.

First, how do we stand with regard to physicians? Rather complete data are available for 1957. In that year North Carolina had 91 physicians per 100,000 population, compared to a national average of 125 (excluding the armed forces). We ranked 35th among the then 48 states. This represents a very modest improvement over the past quarter of a century.

The number of **North Carolina residents** presently graduating from medical schools each year, both in and outside the state is barely sufficient to maintain the present ratio. Approximately 140 to 150 North Carolinians acquire M.D. degrees each year, and about 65 of these are needed to take care of the population growth at the existing ratio of physicians to population. To bring this ratio for the state up to the present national average by 1975, taking population growth into account, will require that the number

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REGISTRATION SCENE

No wonder the registration was so high for the 20th Annual Congress on Occupational Health Congress held in Charlotte in October. Mrs. Connie McDonald of the staff of the Mecklenburg County Medical Society and other attractive personnel met the visitors at the Registration Desk and in the Hospitality and Information Center. With Mrs. McDonald in this picture are Don Seaver (left) of the staff of the Charlotte Observer and Paul Curtis of Raleigh, Psychiatric Social Consultant of the State Board of Health.

NEW PSYCHIATRIC CONSULTANT JOINS STATE HEALTH STAFF

Dr. John Filley of Chapel Hill has accepted an appointment as Psychiatric Consultant in the Mental Health Section of the State Board of Health according to an announcement by Dr. J. W. R. Norton, State Health Director. Dr. Filley (right) who will serve in a part-time capacity is shown with (left to right) Dr. John Lewis, Regional Psychiatric Consultant of the Department of Health, Education, and Welfare, and Dr. Robert M. Fink, Mental Health Consultant of the State Board. Dr. Lewis and other staff members from the Regional Office were in Raleigh recently for conferences on mental health.

Staffing

(Continued from page 6)

ample, a summary of current educational requirements and salary levels, a review of work-experience projects and their place in recruitment, and a pamphlet on new careers in the health sciences.

Supplementing these national "tools," many state and local groups are producing their own materials to provide localized health career information. At least 50 have issued publications of one kind or another including those published in North Carolina), and at least an equal number have gone in for such visual materials as posters and exhibits —there are even several locally produced health career films.

Exploration Across State Lines—Recognizing that what has been accomplished, though encouraging, is only a start, the Health Careers Program places a high value on the initiative taken by local leaders in tailoring their own programs to meet their own needs. Both the Commission and the national agencies are alert to help local groups utilize their own experience as a take-off point for further exploration. One such project—in this instance designed to explore the possibilities and values of cooperation across state lines—was a recent tri-state conference, the first regional meeting under the Commission's auspices.

Covering Maine, New Hampshire, and Vermont, this pilot project has evolved in step-by-step sequence: a recommendation by the national agencies that the value of national recruitment conferences be multiplied through counterpart conferences on a regional basis; acceptance of the recommendation by the Commission and the appointment of a committee of national-agency people with a Commission member as chairman; trial balloon inquiries by national agencies to their affiliates in these New England states; enthusiastic response with the local people "picking the trial balloon right out of the air," taking over as planners, hosts and participants.

Since the conference has just taken place, there has been time for only word-of-mouth reports, but these speak for the success of the venture. Points stressed include: steps already under way to organize more broadly based health career committees (including some new ones) within the several states; a big boost from the only medical school in the region and from other professional schools; active participation by high school administrators and counselors and a practical plan for closer working relationships; top priority on helping to provide better career information and services for the region's many small, isolated rural high schools—described by their conference spokesman as "the kind of grass roots you have to **dig** for."

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Personnel Needs

(Continued from page 7)

of physicians be increased from around 4,000 at present to 7,000.

The situation with regard to dentists is rather similar. There are 28 dentists per 100,000 population, compared with the national average of 53, and the state ranked 43rd among the 48 states in 1957.

These ratios for both physicians and dentists are quite unfavorable, but it is doubtful that the actual shortage for the state as a whole is as marked as they would suggest because the effective demand for medical and dental service is not as great as in some of the more highly urbanized states. On the other hand, it is true that there are areas, mostly in the rural, sparsely populated counties, which urgently need physicians and dentists in order to meet basic health needs, and there are special fields, such as public health and occupational medicine, where acute shortages exist. It is clear, therefore, that continued efforts to expand recruitment and educational programs are necessary to meet the inadequacies which do exist and to provide the additional personnel to meet population growth.

North Carolina has been particularly aware of the shortage of nursing personnel because of all the new hospital beds and problems encountered in staffing them. Estimates of nursing needs must take into account not only the number of nurses required to meet existing deficiencies, and to staff the new positions created by expansion of hospital beds, and of public health, industrial and teaching positions, but also the increasing use of nurses to perform duties formerly performed by physicians which well trained nurses can do just as well. Indicative of this latter trend is the fact that in 1900 three out of every five professional workers in the health field were physicians, whereas in 1950 the ratio had dropped to one out of five.

In 1959 North Carolina had a nurse-population ratio of 217 nurses per 100,000 population, compared to a national average of 259. A study of nursing problems in North Carolina published

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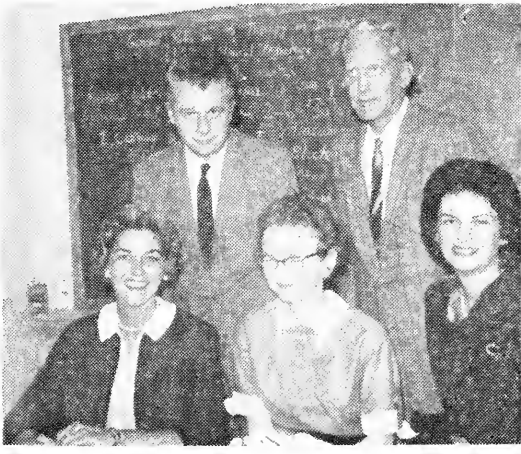
RALEIGH JUNIOR LEAGUE HEARS HEALTH PANEL

The Raleigh Junior League stressed public health in a panel discussion series held this fall for new league members. Mrs. Charles M. Johnson, Jr. is General Chairman of the Provisional Course being conducted in weekly sessions. Mrs. Melville Broughton, Jr. presided at the health panel session. Shown in the picture with these Junior League leaders are the health panel members. Standing, Dr. Jacob Koomen, Jr., Assistant Director, Division of Epidemiology, State Board of Health, and Dr. Robert Fink, Mental Health Consultant of the State Board. Seated are Mrs. Broughton, Dr. Isa Grant, Wake County Health Director, and Mrs. Johnson. Dr. Edwin S. Preston, Public Relations Officer of the State Board, served as panel moderator.



Personnel Needs

(Continued from page 9)

in 1950 estimated that 1,200 nursing graduates each year would be needed to meet the needs of 1960 and later years. As of 1958 graduates numbered 739, far short of this goal.

It is going to take consistent, strenuous effort over a long period of time to increase the output of nurses to a level to meet adequately the state's needs without sacrificing the quality of education. Encouragement may be taken from the fact that over the past decade the educational soundness of the program of nursing education has been greatly enhanced, and the development of four baccalaureate degree schools of nursing has begun to provide some of the better trained nurses needed for administrative, teaching and supervisory positions. Another hopeful development is that of graduate and postgraduate courses in these fields.

There are no accepted statistical indices for the variety of associate medical personnel needed for modern health and medical care, but the expansion of hospital beds has progressed more rapidly than recruitment and education in most of these areas. As a result, although numbers do not compare with physicians, dentists, and nurses, shortages of medical technicians and technologists, anesthetists, dieticians, record librarians, physical and occupational therapists, dental technicians, and medical social workers are quite marked.

A word is in order about the need for public health workers. In most instances public health is a secondary profession, drawing its recruits from the primary fields of medicine, nursing, engineering, etc. It, therefore, suffers from the double jeopardy of scarcity in the primary fields, and competition with other areas of practice which are often financially more rewarding.

This discussion may be summarized briefly:

1. Despite some improvement in recent years, North Carolina ranks well below the national average in ratio of various health personnel to population. The shortage in some personnel categories is acute.
2. The problem is a complex one, and solution will not come quickly or easily. It will involve the promotion of greater public understanding and support, intensified efforts to recruit qualified young people into the various health professions, and the development of additional educational facilities of high quality.

N. H. Collisson, New York, Senior Vice President of the Olin Matheison Chemical Corporation, speaking at the 1960 Congress on Occupational Health —"We have found that you can buy a man's time, a worker's physical presence at a given time and place; you can even buy a measured number of skilled muscular motions per hour or per day. You cannot buy enthusiasm; you cannot buy initiative; you cannot buy loyalty; you cannot buy the devotion of hearts, minds and souls. You have to earn these things."

Dr. E. Vincent Askey, Los Angeles, Cal., President of the American Medical Association, at the 20th Annual Congress on Occupational Health held in Charlotte, N. C.—"Far from undermining the American free-enterprise system of medicine as some maintain, occupational health services actually stand as a bulwark against the forces seeking to scrap the traditional American way of doing things."

THE PROTECTION OF PUBLIC WATER SUPPLIES

The State Board of Health at its meeting in Raleigh on October 6 adopted revised Rules and Regulations Providing for the Protection of Public Water Supplies. Throughout the years the State Board of Health has had regulations governing the protection of public water supplies but revisions were needed to bring them up-to-date and in line with recent legislation, which amended the State Public Health Laws.

Several items were re-written to recognize and include policies of the State Board of Health which have been followed for several years. In the matter of recreational uses of water supply reservoirs, the regulations have been relaxed to allow certain recreational uses not heretofore allowed. For example, regulations controlling fishing, which have been in effect for some time, now permit use of privately owned boats and restricted bank fishing in some cases where provision is made by the city for adequate patrol and control of operations. Reservoirs have been classified as to primary use and activities may now be permitted on one which would be prohibited on another.

Specific regulations relating to bottled water have been included, and these, as well as other requirements, are designed to protect the public who depend on these supplies.

For many years it has been a policy for the municipalities which operate laboratories to submit regularly to the State Board of Health reports showing the laboratory results as well as other information regarding the plant operation, chemicals used, water treated, hours in operation, etc. This information is now required under the revised regulations.

The Board believes that the revisions will be of assistance to the municipal officials and consulting engineers, and will enable the State Board of Health to discharge its responsibilities to the public in protecting the health of all those who depend on public water supplies.

Staffing

(Continued from page 8)

Though it is too soon to see results, it seems likely that throughout the tri-state area this pilot-project will have served its purpose as a catalyst; hopefully, it will also provide a pattern for similar conferences in other regions.

Recruitment: an Accelerating Priority

—Twice within the year a group of eminent authorities has included a call for more, and more intensive, recruitment among its official recommendations on health manpower. In their reports* both of these groups point to the tremendous opportunities for health progress which should be opening up in the next few years; both are emphatic in their concern about present shortages; and both view the need to interest more young people in health careers as an accelerating priority.

Endorsing the Health Careers Program, the Surgeon General's Consultants state that with "shortages of trained people in practically every one of the professional and technical careers in the health field, intensive recruitment of young people . . . is imperative. The work of the Commission on Health Careers of the National Health Council and of state and local health career committees should be encouraged and strengthened."

Reinforcing this, the Senate-appointed Consultants call for "energetic measures to recruit young people," pointing out that in this task—in bringing the opportunities and challenges of careers in health and the health-related sciences to the attention of young people—"an information program through the high schools and through various media of communication is of prime importance."

To carry out these recommendations—to assure that America's health progress will not falter for lack of competent minds and hands—calls for a consistent and concerted national Health Careers Program which is dependent in large measure upon dedicated, imaginative action by state and local groups.

***Report of Surgeon General's Consultant Group on Medical Education, November 1959; and Report of Committee of Consultants on Medical Research, Sub-Committee on Departments of Labor and Health, Education, and Welfare, U. S. Senate Committee on Appropriations, June 1960.**

Pitt County—Chairman J. Vance Perkins of the Pitt County Board of Health presented a pin early this fall to Mrs. Hannah H. Brown in recognition of her 25 years in public health nursing. The presentation was made at a social gathering at the health department that included members of the Board of Health and staff members of the health department.

THE HEALTH BULLETIN

The Official Publication Of The North Carolina State Board of Health

"MISS NORTH CAROLINA" HELPS STATE CHRISTMAS SEAL CHAIRMAN

Charming Ann Herring of Winston Salem, "Miss North Carolina", was glad to assist State Christmas Seal Chairman Carl C. Council of Durham as this year's annual sale of Christmas Seals to help wipe out tuberculosis was launched. Turn to pages 2, 3, 6 and following pages for special articles reporting on Tuberculosis Control and the organizations and agencies which are working at this important job.

November, 1960

The Health Bulletin

The official publication of the North Carolina State Board of Health, 608 Cooper Memorial Health Bldg., 225 N. McDowell St., Raleigh, N. C.—Published monthly.—Second Class Postage paid at Raleigh, N. C.—Sent free upon request.

Vol. 75 November, 1960 No. 11

DATES AND EVENTS

Dec. 2—American Congress on Physical Medicine and Rehabilitation, Washington, D. C.

Dec. 5-6—Annual Meeting, Local Health Directors, Hotel Sir Walter, Raleigh.

Dec. 5-6—National Social Welfare Assembly Annual Meeting, New York.

Jan. 9-13—1961 White House Conference on Aging, Washington, D. C.

Jan. 9-20—Orientation in Radiological Health, Public Health Service Sanitary Engineering Center, Cincinnati, Ohio.

Mar. 13-16—National Health Council, Forum and Annual Meeting, New York.

Apr. 30-May 6—Mental Health Week.

Every Saturday—7:30 p. m. over WPTF, radio program of State Board of Health.

CHRISTMAS SEAL MESSAGE

By Carl C. Council
1960 State Christmas Seal Chairman

THE Christmas Season will soon be upon us, with shopping days, the sending of presents; packages decorated with high, gay colors and, on them, Christmas Seals to further adorn and decorate.

Do these little seals with the double-barred cross have meaning? Most of us know that their purchase has become the chief support of the entire voluntary movement against that ancient enemy TB. Since the first appearance of these stamps more than 50 years ago, "it is estimated that over 8 million people have been saved from death by TB."

Each year when you and I buy these seals we help support the TB associations as they carry on their vital work of health-education, rehabilitation, case-finding, research and other ventures.

But we have heard that TB is licked! Is it? Last year in the United States approximately 80,000 new cases of TB were found, 65,000 of them in an active state; 13,000 died.

In North Carolina 200 will die from TB this year and 1100 or more will fall ill with it. On a given day in March, 1960, 1,883 persons were under treatment for TB in North Carolina sanatoriums and hospitals.

The situation is improving. Better treatment cures more patients, leads to fewer deaths. But new cases continue to appear at a still high, if slowly declining, rate.

Last year the total cost to the nation stood at the staggering figure of $725,-052,000.

Does this look like TB is washed up? Would you not like to be a partner in the continuing battle against TB? Buy and use Christmas Seals.

Medical Research And The Control Of Tuberculosis

David T. Smith,
Professor of Microbiology
Duke University School of Medicine,
Durham, North Carolina

The dramatic decline in the death rate from tuberculosis following the introduction of the new drugs has obscured the numerous unsolved problems, which must be solved, if tuberculosis is to be progressively controlled to the point of elimination.

One hundred years ago when almost 100 percent of adults had been infected with the tubercle bacillus less than 20 percent died of the disease. From this we can conclude that man, unlike the guinea pig, is a relatively resistant animal. But sociological studies have shown that this resistance has a razor edge balance. Individuals who have been controlling their tubercle bacilli without developing disease suddenly develop progressive fatal disease when various types of physical, emotional and environmental stresses are applied.

In World War I in Europe and again in World War II the death rate from tuberculosis increased within a year or two to three times its former rate and decreased back to the former rate within a year or two after the war was over. An analysis of the various factors operating in World War II suggested that the limitation in the quality of the food supply was more responsible than overcrowding in the sudden increase in death rate. Overcrowding, however, is the major factor in producing new infections. It is obvious that a new, undetected patient who is coughing out tubercle bacilli into the air will infect more individuals if he is in contact the one hundred than if his personal contacts are limited to ten persons.

Our systematic case finding procedures over the past twenty-five years, and our isolation and treatment of the spreaders of tuberculosis have reduced the infection rate, as shown by the tuberculin test, in the school children from 20 to 30 percent to 2 to 3 percent. This is a great triumph but these negative children are readily infected if they come in contact with an individual who is spreading the bacilli.

Under the present circumstances a single unknown spreader of bacilli can do much more harm than a single spreader could do when a large part of the population was already infected.

During World War II a small United States naval vessel with some two hundred sailors had a tuberculin positive rate of only 6 percent and no active cases of tuberculosis. Control was maintained by periodic x-ray of the entire ship's personnel.

One sailor developed active tuberculosis, without symptoms, and he was on leave when the periodic x-rays were made. This one case infected about 60 percent of the other sailors and caused twelve new cases of active disease before he was found by the next periodic x-ray of the ship.

This unfortunate episode shows without question the danger of the undetected spreader of the disease and justifies expensive x-ray surveys of ap-

(Continued on page 4)

Help Fight TB

Use Christmas Seals

N. C. Health Council To Meet At State College December 7

The North Carolina Health Council's Annual Meeting will be held in the Theater Room of North Carolina State College Union on Wednesday, December 7, 1960, beginning at 9:00 a.m.

Beginning the morning session, there will be an expert panel on the subject of "Total Health—Where Are We? What Do We Need?" covering areas of occupational health, old age, children with special needs and other areas. Also on the morning session, there will be a panel discussion devoted to the subject "In the Context of the Time—Can We Work Together More Effectively?" The members of this panel will represent various councils throughout the state.

The luncheon session will be addressed by the Chairman of the Board of Directors of the American Medical Association, Dr. Julian Price of Florence, South Carolina. The Council will be honored to have as keynote speaker The Honorable Terry Sanford.

The entire afternoon session of the Council meeting will be devoted to "Future Trends—How Will They Affect Us?" The executive director of the North Carolina Tuberculosis Association, C. Scott Venable, will lead off this panel on the subject of "The Voluntary Agencies' Future". Included on this panel also, will be Dr. Flyod Hunter, president, General Research Corporation, Research Triangle Park, who will speak on the "Changing Community", and Dr. John Cassel, UNC School of Public Health, who will speak on "The Impact of Research."

Newly printed materials will be distributed at the time of the Annual Meeting: the revised Directory of North Carolina Health Organizations, the Health Career Guidebook, and Proceedings of the Sixth Conference on Children with Special Needs—the Academically Talented, held at Duke University last winter and sponsored by the North Carolina Health Council.

MEDICAL RESEARCH

(Continued from page 3)

parently healthy people to find even a few spreaders of the disease.

Both sociological and laboratory research are needed to solve the remaining problem in tuberculosis control. We need to know the secret of the healthy individual who becomes infected but never develops the disease. We need to know why the disease is so slow in its evolution. Often ten, twenty or even larger periods separate the date of infection from the date of the beginning of disease.

We would like to have a vaccine which would be as effective as small pox vaccine.

We would like a drug, which would be harmless and inexpensive, which would kill dormant tubercle bacilli in apparent healthy individuals and thus prevent them from breaking down under stress and strain.

The drugs which save lives in our sick patients seem to work well when the tubercle bacilli are actively growing in the patient but not when they are dormant and not multiplying.

These complicated studies are laborious and expensive and require chemists, bacteriologists with laboratories and experimental animals.

Dr. Norton and Dr. Foard Honored

Two national public health associations have conferred their highest awards on personnel of the State Board of Health.

Meeting in San Francisco, two national public health associations honored J. W. R. Norton, M.D., State Health Director, and Fred T. Foard, M.D., the State Board's Director of the Division of Epidemiology.

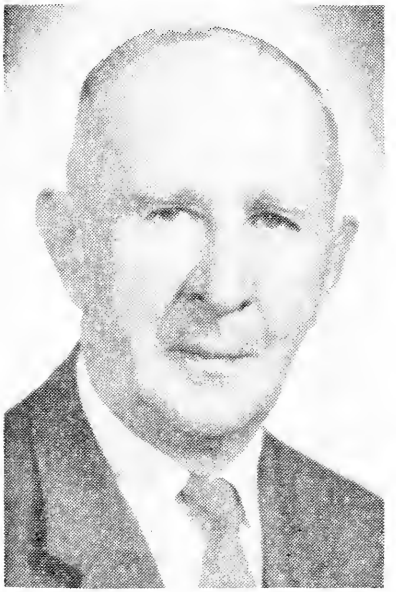
Dr. Norton received the McCormack Award, the highest award given by the Association of State and Territorial Health Officers. Dr. Foard received the Sedgwick Medal, the oldest and highest award given by the American Public Health Association.

The citation for Dr. Norton noted his outstanding service as State Health Director in North Carolina since 1948. He has been named to many state and national places of leadership in these twelve years.

In citing Dr. Foard for outstanding service in public health, the Association mentioned his work in bringing adequate public health services to the American Indians. It noted also the continuing caliber of his work in his present position.

These national awards add to the honors Dr. Norton and Dr. Foard have received but their associates show no surprise at this significant recognition of the worth they already know and appreciate.

Dr. Foard



Dr. Norton

TUBERCULOSIS CONTROL IN NORTH CAROLINA
ACTIVITIES OF THE TUBERCULOSIS CONTROL SECTION, DIVISION OF EPIDEMIOLOGY

By William A. Smith, M.D.
N. C. State Board of Health
Raleigh, N. C.

1. GENERAL

The Tuberculosis Control Section has now been active since July 1945. During the period to December 31, 1945, case-finding was conducted by two mobile x-ray units and only 18,000 persons were x-rayed.

Beginning January 1, 1946 operations were accelerated. The U. S. Public Health Service placed on loan personnel who operated with State personnel and surveys on a larger scale were conducted. During that year over 200,000 persons were x-rayed in counties such as Wayne, Halifax, Gaston, Cleveland and the City of Rocky Mount.

State personnel replaced the U. S. Public Health personnel in 1947 and since that time case-finding through chest x-ray surveys has been conducted with State personnel entirely, with the exception of the Pamlico Study and in that study the U. S. Public Health has furnished nurses, statisticians and a physician consultant.

The total number of persons x-rayed to June 30, 1960 was 3,427,839. Tuberculosis suspects for the ten-year period ending June 30, 1956 averaged 5.65 per 1,000 persons x-rayed; since June 30, 1956 these suspects have averaged for the three-year period 3.46 per 1,000 persons x-rayed.

The sharp decrease in cases found through our mobile x-ray units is believed to be due to the inability of health education campaigns in areas surveyed to convince certain hard core groups of the value of this type public health measure. This Section has not had the services of a full-time health educator for full duty since August, 1953. In the State, on duty in health departments, there are only 10 health educators and in the State Board of Health for duty as consultants there are 4.

This Section has had severe reductions in the Federal budget for the past two years with the results that personnel and the number of actively operating mobile x-ray units have been reduced.

The Section now owns six mobile units; four are generally operating actively, a fifth on occasion. Follow-up services are furnished during community-wide surveys, and on occasion the follow-up is conducted by our personnel during special surveys. A chief clerk in the field and an office trailer are furnished during community-wide surveys.

2. ACTIVITIES DURING 1959

During 1959 our x-ray units visited 27 counties. In addition to regular county surveys, there were surveys of 3 mental institutions; the Central Prison in Raleigh; the University of North Carolina in Chapel Hill and State College in Raleigh, where new admissions were x-rayed in both institutions; Meredith and Peace College in Raleigh, both schools for women; Shaw Uni-

versity (Negro) and St. Augustine's (Negro) in Raleigh; and the Appalachian Teachers College in Boone. During the surveys in the Raleigh vicinity, the personnel of two insurance companies were also x-rayed. A total of 197,603 persons were x-rayed during the year; this was a decrease of 7,239 as compared with the previous year.

In addition to conducting chest x-ray surveys, this Section conducted the activities noted below:

a. Interpeted miniature x-ray films for 12 counties; a total number of 30,890 films were interpreted at the Central Office.

b. Conducted monthly county chest clinics; Randolph, Davidson, Rockingham. Granville, and Franklin Counties.

c. Engaged in and supported tuberculin testing projects such as the Pamlico County Pilot Study. This study has been in progress since November 1956 and will continue into 1961. Three chest x-ray surveys have been conducted and school children have been tuberculin tested during 1956, 1958 and 1960. An attempt has been made to tuberculin test all persons 1 year and over, and also to chest x-ray all positive reactors as well as to chest x-ray all persons 15 years of age and over. So far, over 80% of the population of almost 10,000 persons have participated in the STUDY by having a chest plate or tuberculin skin test.

Sixteen new reinfection clinical cases of tuberculosis have been found. Strangely enough, although many preschool children were tuberculin tested, no primary cases were detected. During the period from November 1956 to the date of the last skin testing of school children in 1960, 21 new reinfection cases of tuberculosis occurred in the county; 16 were found as a result of the x-ray survey, 2 cases were under the care of the family physician and did not present themselves for examination and three cases came to the health department voluntarily.

Wide publicity was given before and during each chest x-ray survey and tuberculin testing of school children. In fact, during chest x-ray surveys particularly, a loud speaker roamed through the farthest reaches of the county. The three cases were 15% of the total reinfection cases found and this percentage is generally representative of those persons who must be convinced that early treatment is a necessary part of tuberculosis control. Two of the three cases were active and one was inactive. This is the group to which health education and sociological research must be emphasized.

The Pamlico project has also furnished valuable information as to the prevalence of non-specific acid fast bacilli infection. The study will terminate in 1961 and it is hoped that the project can continue on a limited scale for there has been a widespread publicity campaign already set up and the area is ideal for further action toward control and eventual elimination of tuberculosis.

Findings up to and including 1958 were published in the November 1959 Health Bulletin. The report, however, did not contain information as to the prevalence of the non-specific acid fast bacilli which resemble the tuberculosis germ. Such findings, however, will be published at a later date.

At this time the results of skin testing of school children in Pamlico County as well as the results of such testing among children in other counties will be seen on the next page.

RESULTS OF TESTING IN SELECTED COUNTIES

(1) Percent of school children with skin reactions of 6mm or over to 5 TU PPDS.

Pamlico County	1956	1958	1960
White	7.5	14.8	12.6
Negro	16.6	22.2	19.8
All schools	11.2	17.8	15.4

(2) First grade Negro children, Edgecombe County, 1960; OT 1-2,000.
Number tested and read 530
Positive 25 or 4.7%; no source cases found.

(3) First grade children, white, Cherokee-Clay-Graham Counties; 1-2,000 OT.
Number tested and read 520
Positive 5 or 0.96%; no source cases found.

(4) Wake County pre-school children, white and Negro; 1-2,000 OT.
a. During a five-year period 10,000 white and Negro pre-school children were tuberculin tested using 1-2,000 OT; 3.5% were positive; one child had active primary tuberculosis and four adult source cases were found.
b. Fifteen hundred ninth grade children were also tested, white and Negro, 2 children were found to have reinfection tuberculosis, one white and one Negro, the adult source cases were known prior to the skin testing; no primary cases were found.

(5) Pamlico County, percent with reactions of 6mm or more to 5 TU PPD-S.
a. White children, 0-4 years 1.5%
b. White children, 5-9 years 1.9%
c. Negro children, 0-4 years 2.9%
d. Negro children, 5-9 years 8.0%

THE HALIFAX COUNTY SURVEY

(6) One of our chest x-ray surveys deserves special comment, and that is the survey conducted in Halifax County, January 1960. During that survey over 5,000 persons were x-rayed and findings were:

Total number persons x-rayed	5,015	
New active tuberculosis cases found	9	or 1.78 per 1,000 persons x-rayed
Sarcoidosis	3	
Pneumonitis	1	
Cardiovascular	275	(this was the largest number of cardiovasculas cases ever found during our chest x-ray surveys)
Total cardio-vascular under 65 years of age	221	
Total enlarged heart alone	211	

Note: The 70 mm x-ray films in this survey were interpreted by a Radiologist as well as by a Staff Physician of the State Board of Health.

The rate 1.78 per 1,000 active tuberculosis cases found is 2½ times the usual findings during surveys.

The Health Director, Dr. Robert F. Young concentrated his efforts in a known sensitive area.

NEW CASES ACTIVE TUBERCULOSIS
CONVENTIONAL AND SELECTIVE CHEST X-RAY SURVEYS
HALIFAX COUNTY
1950-51, 1957, 1959

TYPE OF SURVEY	1950-51		1957		1959		3 YEARS
	TOTAL FILMS	CASE* RATIO	TOTAL FILMS	CASE* RATIO	TOTAL FILMS	CASE* RATIO	AVERAGE CASE RATIO
CONVENTIONAL	22,128	.59	9,344	.54	6,000	.17	.5
SELECTIVE	2,790	1.8	4,012	2.5	3,266	2.4	2.3

*NEW CASES—1,000 FILMS

ARE THE SAME PEOPLE X-RAYED DURING SUBSEQUENT CHEST X-RAY SURVEYS?

One of the principal objections by health directors to chest x-ray surveys is that the same people visit the mobile x-ray units year after year and persons who should have a chest x-ray do not visit the unit. As to this last group it cannot be denied that the 15% of the population must be convinced and it is also true that many of the same people x-rayed do come back during succeeding years but that number is not as great as is generally believed. Our Statistical Section was asked to make a study of the so-called "repeaters" in two counties in the State. A portion of that study is herewith reported:

"In order for survey results of one year to be comparable with survey results of the following year, certain conditions should be met:

(a) Both surveys should be of the same type and common objectives.

(b) The same number of x-ray units should be used in both surveys.

(c) The units should be stationed in the county for the same length of time in each survey.

(d) The units should be stationed in the same place for both surveys.

(e) Both surveys should be done at approximately the same time of the year.

"These conditions were met in an eastern county and in a western county during the years 1958 and 1959.

EASTERN COUNTY "The total 1959 estimated population in the eastern county was 29,631; white 14,256, non-white 15,375. In 1958 in the eastern county 7,921 persons were x-rayed and in 1959, 5,701 persons were x-rayed. A random sample of persons x-rayed in 1958 was selected and each name was checked against the 1959 survey participants in order to determine the number of persons x-rayed in 1958 who came back for another x-ray in 1959. It was found that 40% of those x-rayed during 1958 returned for an x-ray in 1959 and hence 60% were of the 'non-repeater' group.

"It was found that the highest percentage of repeaters was among the white females up to age 60; for older ages the percentage of repeaters was highest among white males. Females, in general, had a higher proportion of repeaters than males. When race was considered without regard to sex, the highest percentage of repeaters was among the white race.

"When each of the 4 race-sex groups was broken down by age, it was observed that the non-white groups contain a higher percentage of repeaters under 20 years of age than did the white groups. Little difference was seen by race and sex in the percentages of repeaters between 20 and 40 years of age. White females had a higher proportion of repeaters between the ages of 40-49.

"Non-white males had a smaller percentage of repeaters in both the 40-49 and 50-59 age groups and a higher percentage 70 years and over than did the other 3 race-sex groups."

WESTERN COUNTY A similar study was made on tuberculosis x-ray surveys in 1958 and 1959 in a western county. In 1958, 8,453 persons were x-rayed in that county and, in 1959, 8,808 persons were x-rayed. A random sample of x-ray cards representing the names of persons x-rayed in 1958 was selected and compared with those x-rayed during the 1959 survey. It was found that 50% of the persons x-rayed in 1958 returned for x-ray in 1959.

In the sample selected less than 3% of the persons x-rayed were non-white and no attempt was made to study this small group.

There was a higher percentage of repeaters among both males and females in the western county than in the eastern county. This difference can be largely attributed to the greater proportion of whites x-rayed in that county. Little or no difference was found in the age distribution of repeaters among white males and females in the western county.

The total 1959 estimated population in the western county was 40,249; white 39,474, non-white 775.

In summary, it will be noted that in the eastern county 60% of persons x-rayed in 1959 had not been x-rayed in 1958, and in the western county 50% of the persons x-rayed in 1959 had not been x-rayed in 1958. The problem in this type of case finding then is to set up a strong publicity campaign to the extent that the small group of "irreconcilables" will respond to this type of examination.

3. NOTES ON CASE FINDING, CONTROL AND ERADICATION

A. **Case finding.** Case finding is the keystone of tuberculosis control. There are certain methods which hardly need repeating but these methods will always be sound. They are:

(1) Case finding through physicians' offices, through tuberculin skin testing of children, particularly those 4 years and under, and routine chest x-ray, whenever practicable of all persons 20 years and over.

(2) Routine chest x-ray of all hospital admissions.

(3) Tuberculin skin testing of school children, particularly those in the 1st and 9th grades, also tuberculin skin testing of all pre-school children and search for the source cases.

(4) Routine chest x-ray of all food handlers as well as all persons who visit county or city health departments for any reason.

(5) Chest x-ray surveys of the general population and special groups.

(6) Routine chest x-ray of all public assistance recipients.

To repeat, Public Health Reports, February 1960:

"Case finding will be more effective if it is directed to selected populations in terms of the degree of their risk, such as contacts of active or formerly active cases, adults over 45 especially males, and certain categories known to be vulnerable such as children under 4, children entering puberty, persons suffering malnutrition or living under congested conditions . . . also "attention to the geographic strongholds of tuberculosis needs to have priority over campaigns of mass screening where incidence is relatively low. After the incidence of the disease is generally reduced, and if results of the studies now in progress so indicate, attention may be shifted from therapy of diseased patients and investigation of suspect populations to the process of screening for postitive reactors to be treated."

Tuberculin testing projects are now being conducted in many counties as a case finding measure. In 1959 there were a total of 72,183 persons in the State who were skin tested and this was an increase of 14,000 as compared to 1958. Fifteen percent of those showed a postive reaction. This means that those positive persons—one in seven—have within their bodies the active tuberculosis germ and have at some time come in contact with an active case of tuberculosis.

B. **TUBERCULOSIS CONTROL.** The control of tuberculosis as well as case finding and eradication is a community

problem. It is best achieved if all anti-tuberculosis measures are applied simultaneously and vigorously but this is not always possible. THE ARDEN HOUSE CONFERENCE of December 1959 has presented definite criteria to follow. These are the "concentration of resources where there is tuberculosis, develop a unified program, review reporting practices, investigate tuberculosis deaths which were not reported during the life of the individual, provide laboratory services, use of the BCG vaccine where indicated, explore social research, develop a new skin test, continue the isoniazid phophylaxis studies both in children and adults, ensure adequate treatment; establish intermediate goals by joints staff of the National Tuberculosis Association and the Public Health Service, locally this means close cooperation between the local health department and the local Tuberculosis Association."

An attempt has been made to determine when the state of CONTROL has been reached. At one time tuberculosis was considered under control if the death rate was 5 per 100,000 population or under and if 5% or less of school children were tuberculin positive. It has recently been suggested that a "surveillance level" in tuberculosis control would be attained if the status of the disease was maintained for five years at below two deaths per 100,000 and 15 new active cases per 100,000. It has been found, however, that less than 1/3 of the counties in the State of Iowa (which has one of the lowest morbidity and mortality rates in the United States) could meet this standard. In North Carolina there are only two counties of the 100 which have had less than 2 deaths per 100,000 for a five year period and both have had an active case rate above 15 per 100,000 over the same period. Additional study is being given the "surveillance level"; apparently the figures are too low.

C. **Tuberculosis Eradication.** Tuberculosis eradication means "to destroy completely or get rid of Tuberculosis." It is the stage following control and the problem is how to render 50 million people in this country tuberculin negative and also to prevent tuberclin positive people from entering the country.

It is extremely doubtful if any infectious disease has or ever will be completely destroyed. Leprosy through strict isolation has not been a public health problem for over 300 years but we still have leprosy. Small pox, diphtheria and typhoid fever are rare diseases and are held in check through effective preventive vaccination.

Present orthodox methods such as effective case finding, isolation, modern treatment, thorough examination and follow-up of tuberculosis contacts has resulted in our State during the past 10 years, in reducing the death rate by 78.6% and the active case rate by 53.1%. These figures may indicate that tuberculosis in this State is approaching control. A review of the facts, however, indicates otherwise.

COMPARISONS FROM VISITS BY PUBLIC HEALTH NURSES

In 1959 our county public health nurses visited 7,677 diagnosed cases of tuberculosis in their homes and a comparison of previous years shows:

Year	No. diagnosed tuberculosis cases visited during year	No. visits made to diagnosed tuberculosis cases	No. visits for tuberculosis in behalf of cases, suspects and contacts
1957	7,309	29,029	75,447
1958	7,959	28,700	76,865
1959	7,677	29,214	76,685

The active cases at home, total cases at home and "home on drugs" shows that there were more tuberculosis cases at home in 1959 than at any time since 1954 and that there are almost 3,000 persons at home under drug treatment, see table below:

	Active at Home	Total at Home	Home on Drugs
1954	755	7,629	Not available
1955	560	7,907	Not available
1958	848	8,861	2,551
1959	891	9,045	2,928

The active case out of hospital always presents a problem. The patient may or may not cooperate and must come in contact with healthy people regardless of home conditions. It would seem best not to treat active cases at home.

4. MORTALITY (DEATHS FROM TUBERCULOSIS)

A. United States (Continental United States: Total United States and Puerto Rico)

B. North Carolina

Deaths and death rates for the five year period 1954-1958 for Continental United States and total United States and Puerto Rico and North Carolina are tabulated below:

Year	Continental United States	North Carolina	Rate Per 100.000 Population: Continental United States	Rate Per 100.000 Population: North Carolina	Total United States And Puerto Rico	Rate Per 100,000 Population
1954	16,392	316	10.2	7.5	17,074	10.4
1955	14,940	254	9.1	5.9	15,611	9.3
1956	14,061	272	8.4	6.2	14,843	8.7
1957	13,324	224	7.8	5.0	13,971	8.1
1958	12,070	227	6.9	4.9	13,084	7.4
1959	. .	208	. .	4.6	. .	. .

It will be noted that the number of deaths from tuberculosis in Continental United States in 1958 was 12,070. In the twenty-five year period prior to 1958 deaths have decreased by over 60,000 or by 84%.

In 1958 the States of Utah and Nebraska had the lowest death rates of any State in the United States and Puerto Rico. The death rate in these two states, Utah and Nebraska, was 2.4 per 100,000 population. Incidentally seven states west of the Mississippi River had a death rate below 3; death rate for North Carolina in 1958 was 4.9.

C. Mortality (Deaths from Tuberculosis) North Carolina

The number of deaths from tuberculosis in North Carolina in 1959 was 208 or a death rate per 100,000 population of 4.6. In 1934, twenty-five years prior to 1959 the number of deaths from this disease was 2,158 or a death rate per 100,000 population of 64.2. There has been a 90% decrease in deaths during this 25-year period.

The death rate in North Carolina has been below the National rate since 1939. Four (4) states east of the Mississippi River in 1958* had a lower death rate than North Carolina. These are:

Wisconsin	3.7 per 100,000 population	Maine	4.7 per 100,000 population
Rhode Island	4.5 per 100,000 population	Michigan	5.1 per 100,000 population
N. Hampshire	4.8 per 100,000 population	N. Carolina	5.1 per 100,000 population

*The 1959 deaths and death rates for these states is not yet available.

5. MORBIDITY (CASES TUBERCULOSIS)

A. United States, Continental United States; Total United States and Puerto Rico

New active and probably active cases of tuberculosis are tabulated below:

Year	Continental United States	North Carolina	Rate Per 100,000 Population: Continental United States	Rate Per 100,000 Population: North Carolina	Total United States And Puerto Rico	Rate Per 100,000 Population
1955	76,177	1,415	46.4	33.0	80,696	48.2
1956	68,852	1,332	41.2	30.2	72,805	42.7
1957	66,437	1,210	39.0	27.1	69,700	40.2
1958	63,000	1,176	36.4	26.3	65,847	37.3
1959	56,709	1,095	32.2	24.2	59,230	33.0

The decrease in active cases in 1959 as compared to 1958 in Continental United States was 9.9% and a decrease of 10% in the 50 states and Puerto Rico, and in N. C., 6.9%.

For the five-year period 1955-1959 the decrease was 25% and 26.9% respectively, and in North Carolina 22.6%.

B. Morbidity (Cases Tuberculosis) North Carolina

Accurate reporting of tuberculosis in North Carolina began in 1945 at which time the State Board of Health organized the Tuberculosis Control Section. In 1945 there were 3,392 new cases reported, or an increase of 1,588 cases over 1944. This large number of cases was not discovered by the Tuberculosis Control Section during chest x-ray surveys, but better reporting was stimulated through the case finding efforts of the Board of Health. The largest number of cases reported for any one year was in 1950, in fact larger than any year from 1918 when cases were first reported in this State. There were, however, actually more tuberculosis cases in 1918 than in 1950, in fact it is estimated that the total active cases in the State in 1918 was over 34,000 as compared to now.

As a matter of general interest active and probably active cases of tuberculosis as well as the total number of cases are herewith tabulated for the years 1948-1959. There were more active cases reported in 1949 than in any year from 1948 to and including 1959.

YEAR	NEW ACTIVE AND PROBABLE CASES OF TUBERCULOSIS IN NORTH CAROLINA		TOTAL CASES
1948	2,029		3,274
1949	2,123		3,402
1950	1,932		3,653
1951	1,743		3,105
1952	1,573	(minimal inactive not reportable)	2,326
1953	1,487		2,001
1954	1,602		2,013
1955	1,415		1,950
1956	1,332		1,850
1957	1,210		1,651
1958	1,176		1,635
1959	1,095		1,472

In 1959 six states east of the Mississippi River had a lower case rate per 100,000 population than North Carolina. These states are:

New Hampshire	13.2	Wisconsin	19.9
Connecticut	14.6	Vermont	21.0
Maine	16.9	Florida	21.6
	NORTH CAROLINA 24.2		

The lowest case rates are west of the Mississippi River:

Nebraska	9	Iowa	10.8
Utah	9.2	Kansas	12.5

Comment: COMPARISON OF DEATHS AND ACTIVE CASES IN NORTH CAROLINA

	ACTIVE CASES DECREASED	DEATHS DECREASED
(1) For the one year period 1958-1959	7.7%	5.7%
(2) For the four year period 1955-1959	23.4%	20.3%
(3) For the 10-year period 1949-1959	53.1%	78.6%

Cases are decreasing at a slower rate than deaths over a ten year period; over a one year and four year period there was no pronounced difference.

SUMMARY

The control of communicable diseases is a community problem and involves all community agencies. Tuberculosis is an expensive disease and is said to cost the community $14,000 per active hospital case. In the region from Wisconsin to the Pacific Coast the average death rate is 4.4 per 100,000 population.

In 1959 the death rate in North Carolina was 4.6, and this figure approaches this western area where the prevalence of tuberculosis is the smallest of any area in Continental United States. For some time this State has had the lowest death rate of any State in the southeast as well as the lowest rate east of the Mississippi except some of the New England States and one mid-western State, namely Wisconsin.

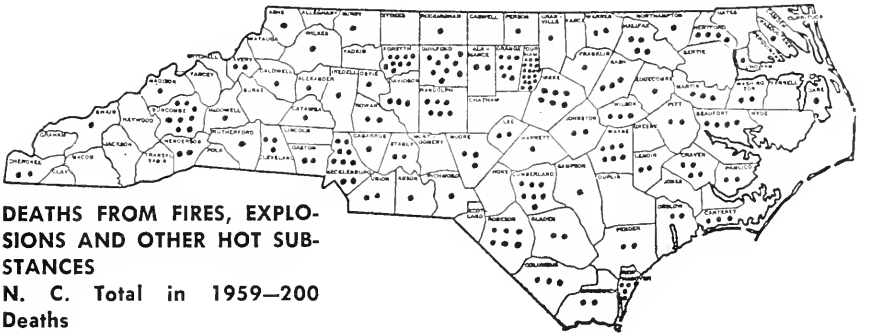
In 1954—19 counties had no deaths; in 1955—23; 1956—22; 1957—26; 1958—28; and 1959—31 counties had no deaths.

Therefore, almost one fourth of the counties in 1958 had no deaths and the question naturally can be asked if the disease is not taken too seriously. There were, however, 995 new active cases reported during 1959, or 995 cases who should be immediately admitted to hospital. This would have been headline news if the 995 persons had poliomyelitis.

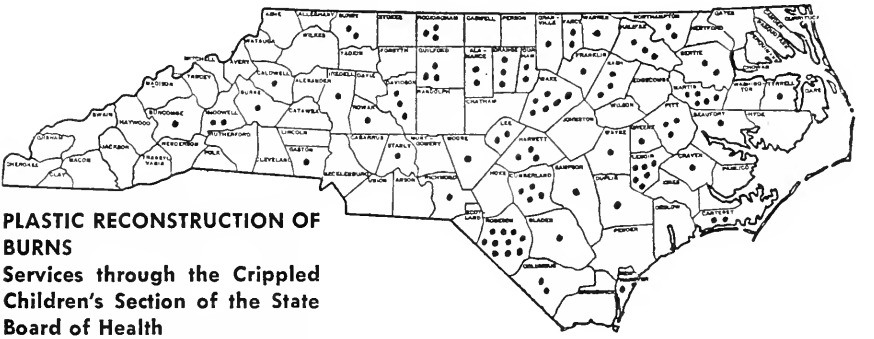
Tuberculosis, when once inactive, may again become active with another period of hospitalization required.

To control and eradicate this disease community action is necessary, and to quote the Arden House Conference, "the time to begin is now."

Deaths from Burns and Plastic Reconstruction of Burns



DEATHS FROM FIRES, EXPLOSIONS AND OTHER HOT SUBSTANCES
N. C. Total in 1959—200 Deaths



PLASTIC RECONSTRUCTION OF BURNS
Services through the Crippled Children's Section of the State Board of Health
January-June, 1960—Total 101
January-December, 1959—Total 233

The two charts above give facts about the deaths from fires, explosions and hot substances in North Carolina in 1959, and the services of the Crippled Children's Section of the State Board of Health in the first six months of 1960 in plastic reconstruction of burns. The top map shows the distribution of the deaths from fires, etc. The bottom map shows the state-wide distribution of the services in the plastic reconstruction of burns.

PARTICIPANTS IN FAMILY LIFE CONFERENCE

A most successful meeting was held in Greensboro recently under the sponsorship of the North Carolina Family Life Council. Centering its emphasis on "Early Marriages", the conference drew an attendance of some three hundred from many professions and vocations. Outstanding speakers from North Carolina and other states appeared on the three-day program. Seen in the picture are some of those attending. They are (left to right): Mrs. Ethel Nash, Chapel Hill, marriage counselor; James Burgess, Asheboro, council vice-president; Mrs. Nancy Smith of Raleigh, public health nurse in Durham County Health Department; Jesse Lanning, Linwood, president; Bishop Hazen G. Werner, Columbus, Ohio, a feature speaker; Marvin Vick, Kinston, a former president of the Council; Miss Mary Hayes, consultant, Health Education Section, State Board of Health; and Mrs. Leonard Middleton, Raleigh, president-elect.

N. H. Collisson, New York, Senior Vice President of the Olin Mathieson Chemical Corporation, speaking at the 20th Annual Congress on Occupational Health held in Charlotte, N. C.—"It has always seemed to me to be a strange paradox that the preventive maintenance of machinery and equipment was accepted and utilized well ahead of the concept of preventive medicine in the case of the plant workers and personnel."

THE HEALTH BULLETIN

The Official Publication Of The North Carolina State Board of Health

LEADERS IN N. C. HEALTH COUNCIL MEETING

The Annual Meeting of the N. C. Health Council held earlier this month had a good attendance of representatives from the more than 50 member agencies and organizations. Outstanding speakers and conference leaders from North Carolina and elsewhere appeared on the day-long program. Some of these leaders appearing in the picture above are (left to right) James T. Barnes, Raleigh, President of the Council; Miss Grace Daniel, Salisbury, President N. C. Public Health Association; Philip Ryan, New York, Executive Director, National Health Council; and Mrs. Lula Belle Rich, Raleigh, Secretary of the Council. (Also see page 7.)

December, 1960

The Health Bulletin

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DATES AND EVENTS

Jan. 9-13—1961 White House Conference on Aging, Washington, D. C.

Jan. 9-20—Orientation in Radiological Health, Public Health Service Sanitary Engineering Center, Cincinnati, Ohio.

Jan. 26—N. C. Occupational Health Conference, Auditorium of Occidental Life Insurance Building, Cameron Village, Raleigh.

Mar. 13-16—National Health Council, Forum and Annual Meeting, New York.

Apr. 30 - May 6—Mental Health Week.

May—World Health Assembly, New Delhi, India.

May 14-19—National Conference on Social Welfare Annual Meeting, Minneapolis - St. Paul, Minn.

June 26-30—American Medical Association Annual Meeting, Statler-Hilton Hotel, New York.

Every Saturday—5:30 p. m. over WPTF, radio program of State Board of Health.

Mental Health Consultants Added To State Staff

Two consultants have been added to the Mental Health staff of the State Board of Health, according to an announcement by Dr. J. W. R. Norton, State Health Director.

Halbert B. Robinson, Ph.D., who is Assistant Professor of Psychology in the University of North Carolina, has been employed as a consultant in Clinical Psychology for the Mental Health Program.

Ralph C. Patrick, Jr., Ph.D., Associate Professor of Epidemiology in the School of Public Health of the University of North Carolina, has been employed as a consultant in Cultural Anthropology and Epidemiology.

Both of these men will meet regularly with the State Mental Health staff and will be available for consultation to local mental health programs. This added personnel joins Dr. Robert M. Fink, Mental Health Consultant, and other members of the staff of the State Board's Mental Health Section in stressing preventive Mental Health Programs throughout the State.

N. C. Sterilization Program Information Available

The Eugenics Board of North Carolina has a leaflet which gives an explanation of the sterilization program. This publication states the purpose of the program, its legal provisions, where an individual can go for help in planning for the operation, how the rights of the individual, the petitioner, physician, and hospital are protected. A brief statement is made relating to the effects of sterilization.

Anyone interested in receiving a copy of this informational leaflet should direct their request to the Eugenics Board of North Carolina, P. O. Box 2599, Raleigh, North Carolina.

An Accident Will Get You If You Don't Watch Out

By Paul Jones
Director of Special Projects
National Safety Council

So the big news of the year was the presidential election?

Or maybe the space race? Or Cuba? Or the U. N. fracas?

Well, not necessarily.

At least not to Walter Klauser. Nor to Robert Coon. Nor to Richard Siewertsen. Nor to Marie Rarrick or Richard Taylor.

For please be informed, friends, that—

Mr. Klauser was run down by a bear on a motorcycle.

Mr. Coon found a 60-foot boxcar in his basement.

Mr. Siewertsen was run over by a house.

Marie Rarrick's car was smacked by a moving tree.

And Mr. Taylor reached up and caught a baby flying through space as neatly as Mickey Mantle would reach up and catch a fly ball.

See now why the election and those other top stories had to share the headlines?

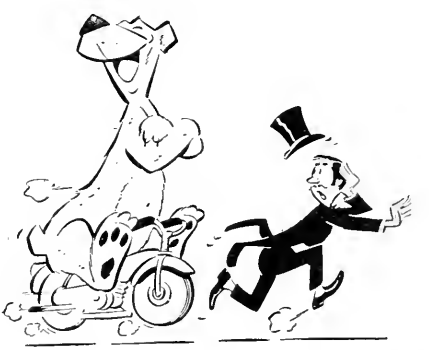
And the oddities listed above were only a few of the weird and wacky wonders uncovered by the National Safety Council in its annual roundup of accidental absurdities.

The dizzy details:

The Case of the Bumptious Bear occurred in Miami Beach, Fla., where a big furry showoff was grandly riding a motorcycle around a ring in the Ringling Bros., Barnum & Bailey circus. Giddy with pride, he lost control, veered into trainer Walter Klauser, sent him to the hospital with leg injuries. The bungling bruin barely managed to retain his driver's license.

It may be possible that someone reading this has never gone to his place of business in the morning and found a nice big 60-foot boxcar reposing in the basement. For him, Robert Coon, of Mason, Mich., has this tip: "You'll be surprised!" The boxcar that greeted Mr. Coon was one of 22 derailed in the heart of Mason. The other 21 were less presumptuous.

Practically the last thing in the world Richard Siewertsen, of Detroit, had planned to do one day last June was to be run over by a house. But he was. Riding atop the house as it was



being moved down the street, Dick hopped off, tried to jump back on, missed—and the house ran over his foot. He is now a great believer in home safety.

When Marie Rarrick reported dutifully to Toledo, Ohio, police that a tree had swerved around a corner and rammed her car, the officers were understandably skeptical until she explained that the tree was on a city truck. Then they got down to the roots of the case.

As Richard Taylor strolled back to his office from lunch in Seattle one day last April, he heard a baby cry and looked up to see 16-month-old Richard Hudson come sailing out of a third-story window. Taylor did what came naturally. He dashed over and caught the child just before the plunging boy hit the pavement. Young Ricky was unharmed. Taylor was shook up.

Every eager baton twirler tries to develop a specialty in his routine that will make him stand out. Teenager Keith Hodges did just that during a parade in Santa Barbara, Calif., when his glistening baton, flipped exultantly high in the air, encountered a wind gust, took off and conked the Hon. Edmund G. Brown, governor of the sovereign state of California, smack on the head. Keith felt worse than the governor did.

As an employee of an automobile concern, Jerry McMahon, of San Francisco, naturally likes to hear his motor purr when he steps on the starter. But when it not only purred, but yowled, he turned it off, jumped from the car and raised the hood. An indignant and battered cat confronted him. She had crawled up under the hood to keep warm. She did.

After many years and half a million miles of accident-free driving, salesman Reed E. Very, of Florissant, Mo., finally rammed his company car into the rear of another vehicle. It was his own car, driven by his wife, who had stopped suddenly at an intersection. Both husband and wife were Very, Very embarrassed.

Safety people are always warning drivers not to stop for a nip. But they couldn't blame motorist Don Etheridge, of Salem, Ore., when he did. Driving through Rawlins, Wyo., Mr. Etheridge prudently thrust out his arm to indicate a stop. A big dog bounded alongside, eyed Mr. Etheridge's dangling fingers and gave him a good nip—right on the hand.

In September last year Tony Atencio, of Englewood, Colo., broke his jaw playing high school football. In December he broke it again playing basketball. In May he broke it again playing baseball. Anyone for chess?

Patrolman Francis P. Sheehan, of the Lockport, N. Y., police force, slipped on a pencil at the head of the stairs,

cascaded all the way down, and was taken to the Lockport Memorial Hospital with back injuries. The pencil that threw him was a souvenir—from the Lockport Memorial Hospital.

In the Harbor Inn restaurant in New York City a patron put a nickel in the juke box to hear "There'll Be a Hot Time in the Old Town Tonight." There was. The juke box caught fire.

A Deer and a deer tangled on the highway near Columbus, Ind. One of the parties involved—Donald Deer, of Indianapolis—reported the accident to police and ruefully exhibited his damaged car. Police didn't get the name of the other deer—a big buck which dashed in front of Donald Deer's car—because he fled from the scene of the accident. Oh, dear.

Anthony Scarrott, of Bath, England, is really a bouncing baby boy. The 22-month-old youngster tumbled out of his carriage. He bounced up, ambled into a coal chute, fell 11 feet into a cellar. He bounced up again, tottered toward the door, walked through, and plunged into the River Avon. The water wasn't hard enough for him to bounce, so he submitted to rescue by a neighbor. He suffered only minor bruises—and of course bounced right back to health.

Farmer Hubert Sowers, of South Charleston, W. Va., went hunting, tripped and broke his ankle. Meanwhile, back at the farm, Mrs. Sowers whacked a fidgety cow on the flank to make it stand still, broke her hand. They broadcast their misfortune, cast to cast.

In Fort Worth, Texas., A. C. Reid, Jr., treated for a bump on the head, explained he had been waiting for an elevator in an office building and had opened the safety door to see if it was coming. It was.

In Red Bluff, Calif., Janet Thomas was shot by her horse, aided by a porcupine. Janet was riding the horse when the porcupine fell out of a tree. The horse reared. As Janet fell, she dropped her rifle. The horse stepped on it, and Janet was shot in the leg. She now uses the family car.

When 2-year-old Ricky Bivins, of Evansville, Ind., decided to visit his grandmother down the street, he swiped the car keys from the kitchen table, seated himself on the floor of the family car, turned on the ignition and pushed on the accelerator The car had been left in high gear. It bolted straight ahead. For 100 yards it stayed on the right side of the street. Then it veered across the road, sheared off a 20-foot telephone pole, roared straight ahead for two blocks on the busy street, rammed into a one-story frame house, bounced back, rammed again. Ricky was unhurt, but shaken. So were his parents, Mr. and Mrs. Everett Bivins. Item: A few days later Ricky cut himself while trying to shave with a razor with no blade in it. Any suggestions?

Mrs. James C. Tate, of Dallas, Tex., got a compact car the hard way. She ran her auto into a truck and another truck hit her from the rear.

The next time you ladies have trouble parking, take solace from the experience of Mrs. Rubie Johnson, of San Francisco. Attempting to park her car in a garage attached to her home,

Mrs. J. hit the gas pedal instead of the brake. She crashed through the garage, rammed into the basement, tore out the rear wall, careened across the back yard, knocked down a fence, ruined the car—and gave the neighbors something to talk about for months.

When police of Port Credit, Ont., investigated the highway accident of Harold Herbert, they found him as white as a ghost. His car had gone out of control and hit a culvert, tossing him out. The car trunk burst open. A can of white paint came flying out, and the lid came off. Mr. Herbert got a broken ankle and a real good paint job.

And in Albany, N. Y., John Frain decided to spend a quiet evening at home and avoid the heavy Labor Day holiday traffic. As he sat reading in his second-floor apartment, the floor collapsed. He fell to the first floor, broke a leg. Sometimes you just can't win!

Sure, there was a national election in 1960, and a lot of other big news.

But honestly, now, don't you think the items you have just read were a little newsy, too?

—Traffic Safety Magazine.

Radiological Seminar To Be Held

The Seventh Annual Radiological Health Seminar at the University of North Carolina, Chapel Hill, will be conducted by the School of Public Health and the North Carolina State Board of Health on January 30-31, 1961.

The theme of this Seminar will be "The Concept of Total Dose Assessment." Dr. K. Z. Morgan of the Oak Ridge National Laboratory and Dr. Richard Chamberlain of the University of Pennsylvania and Dr. Jan Lieben of the Pennsylvania State Health Department will be among the instructional staff.

Long Service Honored

Mrs. Roberta B. Hyatt retired recently from the Buncombe County Health Department after 18 years of unselfish devotion in the field of preventive medicine.

Mrs. Hyatt was born in Southern Pines, North Carolina and graduated from Meredith College. She began work with the City of Asheville Health Department under Dr. Margery J. Lord and retired from the position of Assistant Vital Statistician with the Buncombe County Health Department.

The Health Department staff presented Mrs. Hyatt, upon her retirement, with two travel suitcases. She also received other gifts from different divisions of the department. Mrs. Hyatt plans to visit her children in several states and do considerable traveling for the next few years.

The story above tells of the scene below. Left to right are: Mrs. Hyatt, Dr. Lord and Dr. H. W. Stevens, Asheville, Local Health Director.

Dangers of Asphyxiation From Space Heaters

By John Lumsden
Occupational Health Section
State Board of Health

Recently in a North Carolina grocery store, the owner, working alone, was discovered unconscious by a customer, rushed to the hospital where he was assumed to have had a heart attack.

This same sequence of events occurred three times and it was not until his wife experienced exactly the same situation that anyone questioned whether the heating system was functioning properly or not.

Inspection of the store revealed that two space heaters were being used. One was an unvented heater using kerosene for fuel. The other was a ceiling-hung gas heater with a flue to the outside and using low pressure butane for fuel.

Oddly enough, chemical tests of the air in the store revealed the gas heater to be the offender which nearly took the lives of two people. The flue was not designed properly and was ineffective when all doors of the store were closed. The building was virtually airtight and no provision had been made for air to replace that used by the heaters.

During the winter of 1959-1960, the number of deaths due to carbon monoxide poisoning that occurred among occupants of small house trailers aroused national concern. Trailers, particularly the size used by sportsmen for hunting and fishing trips present small, confined spaces where a poorly designed heater can very quickly generate enough carbon monoxide to be lethal.

One of the most vital necessities for sustaining a human life is often carelessly or ignorantly disregarded and the consequences can, and more often than is necessary, lead to death. This important item is the air we breathe. Since no person can afford to be without "good" air for even a relatively short period of time, it behooves everyone to be ever mindful of this situation and not allow himself to become trapped either awake or asleep without an ample supply—By "good" air is meant an atmosphere that has an adequate oxygen content in normal balance with carbon dioxide, nitrogen, and the other trace gases and does **not** contain toxic substances like carbon monoxide.

The winter season is expected to reap its usual toll of persons who become asphyxiated because of poorly designed or improperly operating heating systems. All systems which burn a fuel whether it is oil, gas, coal, wood

SPEAKERS at Health Council Annual Meeting—Dr. W. L. Wilson of the State Board of Health; Dr. Susan Dees of the Duke Medical Center; and Dr. Eugene Hargrove of the N. C. Hospitals Board of Control.

or other material present a potential hazard. Some, of course, are inherently more hazardous than others.

The burning of fuels can create hazardous situations either by poor or restricted combustion where carbon monoxide is formed or by depletion of the oxygen in a confined space to a point that it can no longer support life. The first of these occurs more frequently.

When any normal heating fuel, regardless of type, is burned with an adequate air supply or "draft," the gasses produced are carbon dioxide, water, and much smaller quantities of miscellaneous compounds which are relatively innocuous. However, if the flame is starved for air, combustion will not be complete and carbon monoxide will be produced instead of carbon dioxide. Carbon monoxide is an insidious poison since it is odorless and colorless, and a person who is being exposed to dangerous concentrations may not even be aware of the exposure until he is completely overcome and unconscious.

To help guard against the possibility of being overcome by carbon monoxide, there are some things that the home or trailer owner can do merely by examining his particular heating system with these thoughts in mind.

If the firebox or combustion chamber is located outside the living area, as in the case of most floor furnaces and some hot air systems, then air needed for complete combustion is usually assured. The entry of gases into the living area in this case would be through breaks or openings in the firebox. If this cannot be checked by the owner, then a heating contractor can make this inspection.

If the firebox or combustion chamber is in the living area then there should be some provision for makeup air to enter the house to replace that used in the burning of fuel. A shortage of air results in incomplete combustion and consequently, formation of poisonous gases and an inefficiently operating furnace. With either arrangement, a clean flue and chimney with ample draft is necessary.

If an unvented heater is used, the chances of the air in the living space becoming contaminated and dangerous is increased considerably. All the gaseous products that result from the burning of the fuel, usually a gas, are released into the room. This type of heating system requires added caution and vigilance on the part of the home owner to maintain a well ventilated living area.

Concern for safety should increase as the amount of space being heated becomes smaller. For example, if an unvented heater is used to heat an entire house during the day, but only one or two rooms at night, then the hazard of asphyxiation for the occupants is greater at night.

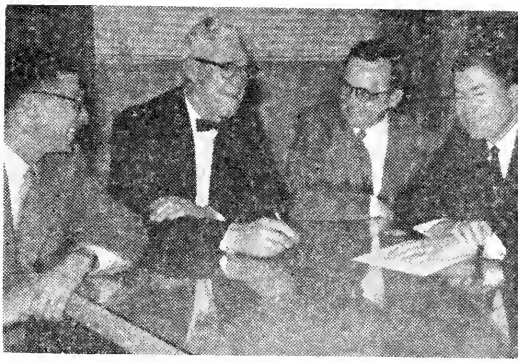
Adequate ventilation of the living space is necessary for two reasons in the case of unvented heaters. First, good air must be available for proper combustion of the fuel as in all types of systems, and secondly, the products of combustion must be diluted with outside air to keep the concentration of poisonous gases below toxic levels. Even the presence of too much carbon **dioxide** and too little oxygen is hazardous and can occur with unvented heaters.

It is tempting fate to live and to sleep in a closed house or room with this type of heater.

Make an honest evaluation of your heating system with these precautions in mind for a safer winter season. If your heating system is complicated and you do not understand its operation, call a reputable heating contractor for an inspection. Death by asphyxiation can result from the careless neglect of most any type of heating plant.

Communications Workshop Held For State Staff

The professional staff of the State Board of Health held a three-day workshop in December seeking to improve communications. The four emphases during the conferences were "Communications Within the State Board of Health", Communications With Other Agencies", "Communications With Local Health Departments", and "Improving One's Own Communications Skills". Some of the outstanding leaders and consultants participating are shown on this page.



At the top at the right is a picture showing: (left to right) Dr. John Schopler of the department of psychology, University of North Carolina; Dr. J. W. R. Norton, State Health Director, who participated and attended faithfully; Edward L. Rankin, Jr., Raleigh Manager of John Harden Associates; and Dr. J. Wilbert Edgerton, consultant in clinical psychology from the Public Health Service.

The picture at the bottom left shows (left to right): C. B. Jones, manager of industrial relations of the Westinghouse Meter Plant in Raleigh; Mrs. Lula Belle Rich of the State Board, chairman of the workshop planning committee; James E. Sherry of Washington, D. C., management analyst from the Public Health Service; Dr. Ruth Sumner of Charlottesville, Va., health education consultant of the Public Health Service; and Dr. Godfrey M. Hochbaum of Washington, D. C., chief of behaviorial studies of the Public Health Service.

Local Health Directors Meet In Annual Session

That ancient and colorful phrase, "From Manteo to Murphy", was borne out literally in the local health directors represented at the Annual Meeting of that group earlier in December. A vigorous and challenging program was planned by Dr. Robert D. Higgins, director of the Local Health Division of the State Board.

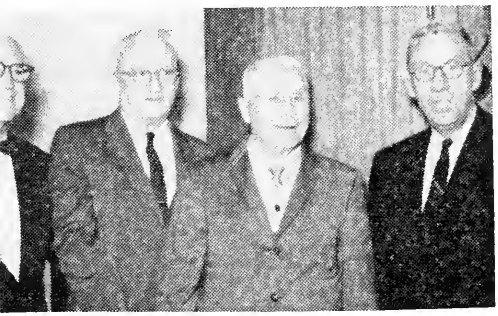
Dr. J. W. R. Norton, State Health Director, presided at several sessions and led in the free discussion of programs, plans, and policies in public health. Dr. Charles R. Bugg, president of the State Board attended the opening session.

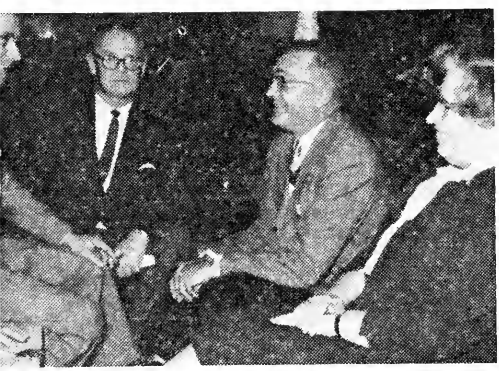
Scenes from this meeting appear on this page.

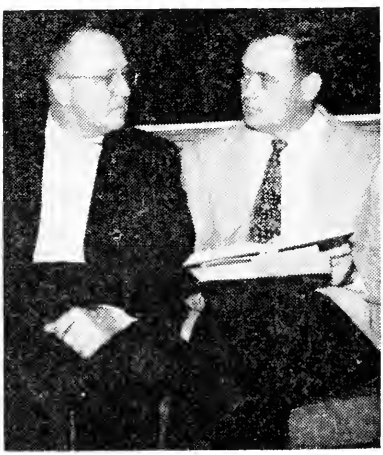
In the picture at the upper left are shown the local health directors from Manteo and Murphy with Dr. Norton (left) and Dr. Higgins (right). In the center of that picture are Dr. W. W. Johnston of Manteo and Dr. W. S. Cann of Murphy.

In the picture at the right Dr. William H. Bandy (left) of Hickory is conversing with Roddy Ligon of the Institute of Government of the University of North Carolina.

At the bottom left is a scene during profitable informal hours of fellowship. Left to right are: Dr. E. H. Ellinwood of Greensboro, Dr. Dermont Lohr of Lexington, Dr. H. W. Stevens of Asheville, and Dr. Elizabeth C. Corkey of Charlotte.







Film Available In Mental Health

STIGMA—A sensitive portrayal of the way in which community attitudes toward mental illness may hinder a patient's return to normal life. The film tells the story of Shiela, a young woman engaged to be married, who suffers a mental breakdown, recovers fully in a mental hospital, and returns to her former environment.

Instead of the understanding and support she most needs from her friends and associates, Shiela is virtually ostracized.

The scene at the right is from this film.

The film makes a plea for a change in the sort of public thinking which places a stigma upon people who have suffered from an illness of the mind rather than of the body. Produced by the National Film Board of Canada.

Especially valuable for public health nurses. Black and white—16 mm.—20 min.

To use this film, order from Film Library of the State Board of Health.

N. C. Occupational Health Conference To Be Held In January

A statewide conference on Occupational Health will be held in Raleigh January 26, under the sponsorship of the Governor's Council on Occupational Health. Fred E. Henderson of Winston-Salem is chairman of the Council.

Over 1,000 leaders in business, agriculture, industry, medicine, public health, industrial medicine, and other areas have been invited to attend. The all-day program will cover many subjects in the field of occupational health. The conference will be held in the Auditorium of the Occidental Life Insurance Building in Cameron Village.

The program, which will begin at 10 a.m., will continue throughout the morning and early afternoon and will end with a conducted tour of the nuclear reactor at N. C. State College.

Among the features at the conference will be an address by W. D. Carmichael, Jr., vice president of the University of North Carolina and chairman of the N. C. Atomic Energy Advisory Committee. There will be a discussion of atomic energy and plans for health protection from all occupational hazards and discussions of outstanding problems of women in industry. One feature will be an authoritative panel discussing insurance for working people.

A Handbook entitled, "Better Occupational Health for North Carolina", produced by the Governor's Occupational Health Council will be distributed at the conference.

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